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ABSTRACT

The report covers the final year of a 3-year project to develop a career education continuum for grades K-14 in participating Pennsylvania school districts. Third-year objectives included procedures for working with select groups of students and teachers to refine successful components from the first two years. The general strategy of project staff acting as change agents for teachers, counselors, and students in relation to career education activities was continued in preparation for the assumption of career education activities by local personnel at the termination of the project. These activities were curriculum infusion for grades 1-8, teachers' inservice training (grades 1-8), Singer Carrels exploration component for grades 6-9, group counseling sessions for grades 6-8, and a model for community involvement. It was concluded that given the size of the staff and severe financial limitations, the project was very successful. Process and product objectives and project design are described. Major accomplishments, conclusions, discussion and recommendations are delineated for each of the components. A 38-page third-party evaluation by Educational Research and Development Associates is included. Appendixes comprise 165 pages and include materials and information on curriculum infusion, the Singer Carrel program, materials relating to the career experience program, and the U.S. Office of Education monitoring team report. (TA)

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FINAL REPORT

Project No. V361012
Grant No. OEG-0-73-5272

LANGUAGE EXPERIENCE BASED AWARENESS
+
HANDS ON EXPLORATION
+
COMPETENCY BASED PREPARATION
=
A SCHOOL BASED TOTAL CAREER EDUCATION MODEL

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

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SUMMARY

The three year exemplary project in Career Education, funded under part D of public law 90-576, was successfully conducted by the Admiral Peary AVTS, Ebensburg, Pennsylvania, during the period 1 July 1973 to 30 June 1976.

Project objectives are classified as either process or product.

Process Objectives

- To develop a "reality bound" program of Career Awareness for students in the elementary grades that will expose the students to many of the actual materials and equipment utilized in the world of work in general,
- To develop a "reality bound" Career Exploration program for the junior high school or middle school students with actual "hands-on" experience in the exploratory sense in the various occupational clusters, and to make available to students sufficient information and experiences to allow them to chose a general direction in which they wish to pursue an occupation,
- To develop Career Preparation programs in grades 10 thru 14, that integrate both home school and vo-tech curricula to provide job preparation for a variety of occupational areas commensurate with the student's interest and ability,
- To implement a placement procedure program whereby the AVTS and the school district will cooperate with the Bureau of Employment Security, other governmental agencies, business and industrial leaders, and educational leaders in the community to attack the long and short range problems of employment for those seeking it. Work experience and cooperative work study programs will be an intergral part of the program. Placement in post secondary programs and higher education will also be included in this program, and
- To develop a total educational continuum, K-14, which offers the opportunities, information, and experiences to students in all grade levels so that they may be made more aware of the various occupations, relationships between occupations, and the important role that chosen careers will play in their personal, social and economic lives; and to provide all students with sufficient information commensurate with their level and ability for developing and practicing decision making skills about their lives.

Product Objectives*

The students in grades 1 through 9 will demonstrate:

(a) Significant improvement in knowledge of the world of work including:
  - Tools/occupation relationships
  - Tools/function relationships
  - Correction of common misconceptions
  - Occupational characteristics and requirements.

(b) Significant improvement in the role of personal choice in occupational planning.

(c) Significant improvement in perception of work and satisfaction derived from work.

(d) Significant improvement in attitude toward school.

(e) Significant increase in knowledge of occupational alternatives.

(f) Significant increase in knowledge of programs offered by the AVTS and the high school.

(g) Significant improvement in the perception of the climate of the AVTS including:
  - Instructors
  - Curriculum
  - Students
  - Facilities.

(h) Significant improvement in the basic skills, including, but not limited to:
  - Reading ability
  - Mathematics ability.

Students in grades 10-12 will demonstrate:

(a) Significant improvement in perception of work and satisfaction derived from school related activities.

(b) Significant improvement in the perception of the role individual choice plays in occupational planning.

(c) Significant improvement in perception of school climate including:
  - Instructors
  - Curriculum
  - Students
  - Facilities.

(d) Favorable attitude toward and use of the counseling services, placement services and work experiences opportunities provided them.

Teachers of students in the sending schools will demonstrate:

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* These are the product objectives, as stated in the original proposal.Guidelines issued during August, 1974, by U.S.O.E. and Development Associates, Washington, D.C., were interpretted to supercede these product objectives for the second and third project years.

(a) Significant increase in knowledge of programs and facilities offered by the AVTS and the high school.
(b) Significant improvement in perception of the climate of the AVTS, including teachers, students, curriculum and facilities.
(c) Significant improvement in attitude toward skilled trades crafts.

Procedures at the elementary and middle school grades (1-5 and 6-8) were similar in nature and centered around group participation in Career Education related activities. Major student activities were:

- Field trips to various career areas at the Admiral Peary Area Vocational-Technical School (AVTS),
- Field trips into the community,
- Classroom visits by resource persons from the community,
- Hands on activities in Singer Vocational Evaluation Carrels (primarily middle school),
- Group Counseling sessions, and
- Curriculum Infusion procedures coordinated with the above listed activities.

Procedures at the secondary level (grades 9-12) involved a more individualized approach with a heavy career guidance component. Ninth grade students were provided the opportunity to spend five half days during a school week "working" with a highly skilled person at a career exploration site. This experience was to occur either at the AVTS or in the community, including the schools in the district.

The strategy to be utilized in grades (10-12) was to accommodate the organizational structure of the high school according to subject area departments and to work with small groups of students interested in and volunteering for a specific Career Education activity.

Post-secondary activities in a total career education model involve the following goals:

- A placement program for those seeking employment at the end of 12 years of education,
- A placement program for those students who wish to continue on to college, and
- Articulation of secondary and post-secondary programs for those desiring employment in occupations requiring more than 12 years but less than 16 years of education or training.

The activities were to be carried on in cooperation with the cooperative education and placement personnel of the AVTS and in conjunction with a "floating community college" consortium arrangement that was to be operational during the second project year.

Procedures for the guidance and counseling component of project goals overlapped each of the aforementioned three components in that Career Guidance and Counseling is considered to be a curriculum oriented activity that ties together a continuum of educational experiences in grade K through 12.

Accomplishments at the elementary and middle schools were essentially the same and included the following activities:

- Development and dissemination of a list of Career Education Objectives and Guidelines,
- Development and dissemination of Learning Activities Packets for Curriculum Infusion into regular classroom activities,
- Development and implementation of procedures for field trips to the area vocational-technical school,
- Development and implementation of procedures for utilizing resource people in and from the community,
- Establishment of Career Resource Centers (CRC's) in the schools,
- Development of Career Education activities utilizing the Singer Vocational Evaluation Carrels (primarily middle school grades),
- Preparation of classroom teachers through workshop and in-service activities,
- Product objectives satisfied at the elementary level were as follows; first year approximately 75%; second year 100%; third year (NA), and
- Product objectives satisfied at the middle school level were as follows; first year approximately 33%; second year 75%; third year 46%.

Because of an approximate 46 per cent reduction in funding for the second and third years of the project and consequent reappraisal of project goals and priorities, activities conducted in the secondary and post-secondary components were greatly dimished. In fact, no activities in these areas were conducted under direct control of project personnel during the third project year. Additionally, the "floating community college" concept described in the original project proposal had not become a reality, as of the project closing date. Also, the low density job market in the rural area of the LEA offered limited placement opportunities and project staff deferred to operational staff of the LEA in this area of activity.

Accomplishments at the secondary and post-secondary level were more individualized than those at the lower grade levels and included the following:

- The ninth grade Career Experience Program was well received and highly rated by students and instructors,
- A Career Militia Day was conducted in cooperation with the USAR to provide students with the opportunity to explore career possibilities in the military, with particular emphasis on the vast number of civilian related jobs available in the military,
- A Career Education Symposium was conducted in cooperation with the Department of Industrial Relations, St. Francis College, Loretto, Pa. The theme, "Career Education and the World of Work," focused on secondary and post secondary career education, and
- Product objectives satisfied at the secondary level were as follows: first year 0%; second year 64%; third year 9%.

Accomplishments in the Career Guidance and Counseling component included the following:

- Development and implementation at the elementary grades of supplemental classroom visits about the worth of the individual person,
- Development and implemention at the middle school level of affective units dealing with interest, ability, and choice in relationship to the career decision process,
- Development and implementation of the 9th grade Career Experience Program,
- Review and selection of materials for Career Resource Centers, and
- Assistance in the testing program.

The following recommendations are made, as a result of results obtained during this three year project:

- Teachers trained in Curriculum Infusion be encouraged by school administrators to continue Career Education activities,
- Project trained teachers be encouraged to become Career Education team leaders; each one responsible for training several non-participating teachers in the methods and procedures of Career Education,
- Appropriate incentives be provided to Career Education team leaders and other participants to encourage further development and implementation of Career Education activities,
- The appropriate resources should be provided and/or made available both to the teacher and to the individual student, to enhance the infusion of Career Education curriculum units into classroom instruction. These resources include CRC's and other learning stations within the school as well as those available in or from the community,

- Whenever out of classroom activities are utilized, they should be warranted by curriculum content, be well planned, be keyed to the individual student's interest, aptitude, and abilities, and include both preparation and follow-up activities,
- The Singer Carrel Component (with appropriate modification) of the Career Education program be made an operational part of the regular school program,
- Sample stations with community input and orientation should be developed,
- Related guidance functions should be identified and cooperative efforts between Singer Carrel staff and guidance personnel be cultivated,
- Continued use of media to keep the general public informed of program development should be encouraged,
- The Career Experience program should become an operative part of each participating school's guidance and instructional program throughout the school year as a true apprenticeship program and not merely one more orientation promotion,
- A community component of the Career Experience be created and implemented by participating school personnel,
- Involvement of graduate and undergraduate education majors in Career Education in the public and private schools be continued as a means of infusing new ideas into the educational system,
- Community involvement, and most particularly parents, be encouraged in Career Education activities,
- Dissemenation activities be continued as a "two way street", i.e. internally developed Career Education curriculum materials be widely disseminated within participating school districts and materials obtained from outside sources, e.g., other Career Education Project sites, be disseminated within the participating districts, and
- Because the Career Education concept is dealing with a long range problem, any Career Education program should maintain continuity from year to year for a minimum of 3 to 5 years to allow measurable effects to occur, and
- The very promising program with the military be continued.

CHAPTER I

PROBLEM AREA TOWARDS WHICH PROJECT WAS DIRECTED

A. Introduction

A comparison of the 1960 and 1970 U.S. Census figures* indicates that among the larger counties in the nation, Cambria County, Pennsylvania, was ranked third largest in terms of negative growth with a negative 8% rate. Growth rate is defined as migration rate plus natural increase (births - deaths). The "net" out migration, according to a population study by the Cambria County Planning Commission,(1) for the county is 14.1%. With the exception of Clearfield County, Cambria County exceeds its surrounding counties and the state (4.0%) in net migration. The 14.1% figure for the county as a whole masks a more critical problem area in that, when census figures are inspected under the classifications of male and female for the 18 to 24 and 25 to 34 year age groups, the out migration ranges from 32% to 43%. In other words, approximately one out of every 3 people immediately beyond high school age are, apparently not only leaving high school but are also leaving the county. Undoubtedly, many of those people leaving the county are members of the labor force frustrated in their attempts to secure employment, either because they are not prepared or trained for the jobs available or because jobs are not available. One reason why jobs may not be available is becaused a skilled labor force is lacking in the region, thereby giving business and industry no incentive for locating in the area. The lack of a skilled labor force is a significant contributing factor in the depressed economy of Appalachia, of which Cambria County is a part.

Taking into account the fact that occupational mobility declines as the age of one seeking employment increases, the above figures for young migrants can be explained in part. The fact that one person looks harder for employment than another person does not necessarily mean that he or she will find a job, for the number of jobs does not correspond to the demand for them.(2) It may be inferred, from inspection of the above out migration figures, that the youth of Cambria County are seeking employment outside of the county.

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*It should be noted that the original project proposal was submitted in December, 1972 and that the dramatic changes in the national economy since the oil crisis of 1973 have had an affect on the actual figures cited here. Although specific figures are not available, it is believed that these changes have heightened the need for Career Education for the target population.

The unemployment rate for the Johnstown Labor Market Area (of which the Admiral Peary AVTS sending school districts are a part) in 1971 was 6.9%.(3) This figure, combined with the fact that the present net out migration rate for Cambria County is 14.1% , reflects even larger problems regarding employment. It can be assumed that in the absence of this out migration, the unemployment percentage would be considerably higher. For, as was stated previously, a majority of people are leaving either due to the unavailablity of employment or due to a lack of training for the jobs available.

Another factor which should be considered is that there is an amount of disguised unemployment, that is, those at work part time, but with the desire for full time employment. A 12 month average of unemployed and under-utilized accounted for 18,652.(4) With the exception of the city of Johnstown, which is a metropolitan area, the rest of Cambria County for the most part is rural Appalachia. A 1972 study sponsored by the Admiral Peary AVTS and conducted by the Industrial Relations Department of St. Francis College, Loretto, Pa., has shown that the job needs, current and projected, in the Cambria County area were not being met by output of the school systems.(5)

Pennsylvania has increased its population by 4.2% from 1960 to 1970. All adjacent states have had greater increases except West Virginia, which had a decrease of 6.2%. For this time period, this decrease can be attributed in part to the decline of the coal mining industry. This problem is also central to the Cambria County situation. The percentage change in employment from 1960 to 1970 in the area of mining was a negative 20.4%. With the recent energy crisis and re-emergence of coal as a significant energy source, a great upsurge in mining and related support industries is projected to continue on into the 1980's. As elsewhere in our largely technological society, the size of this increase will be constrained somewhat because of the increase in new devices which increase productivity and decrease the need for laborers. Future needs will be for men trained in running the new continuous mining machinery systems and the supervisors of these operations. Other projected negative changes in employment are negative 11.1% in Public Utilities, negative 8.2% in Agriculture and negative 3.2% in Manufacturing.(6) Retraining for these people will be imperative. It should be remembered that the longer one remains unemployed, the less likely he or she is to be considered a prospect by those who interview that person. (7)

It can be said that in view of the high unemployment rate, the high out migration rate of young people, and the lack of preparation for jobs available in the Cambria County area, Cambria County is essentially a microcosm of the employment problems of the nation, with specific emphasis on problems of rural America. One characteristic shared by the rural people of Cambria County and the people of urban areas is poverty. Thus, to a great extent what can be shown to be effective in the schools in terms of preparation for the world of work in Cambria County would probably work in most urban areas with modifications to meet local conditions.

The average education in Cambria County for persons 25 years old and over has risen from 9.1 years completed in 1960 to 11.2 years completed in 1970. This is a 23% increase. The median school years completed by the employed civilian labor force in the United States as of March 1971 was 12.4 years. It is significant to note at this point that although there is a great number of people with a high school education in Cambria County, there is still a high degree of unemployment and out migration.(8)

Studies have shown that for the American labor force, those under 35 years of age spend an average of 1.5 years per job. For those over 35 years of age, an average of 8 years is spent per job.(9) Most individuals have little information when job hunting. It is known that high turnover rates in certain occupations, or for certain individuals is due to a lack of information regarding the job in question. Job expectations, wages, benefits, and hours are seldom known by job seekers before seeking or accepting employment. Resignations are abnormally high during the first months of employment which indicate a dissatisfaction on the part of the new employees.(10) In 1971 the proportion of unemployed teenagers in the labor force because of job market entry and reentry was over 12%.

This 12% unemployment rate is a reflection of the dissatisfaction new entrants into the labor market experience. Time is lost changing employment. It can be assumed that teenagers would not lose as much time changing jobs if they have a better idea of what to expect in terms of the employment they choose. They should have a better idea of what they are looking for and how to go about finding it. The 12% figure for entry and reentry could be significantly reduced. This figure is out of an overall youth unemployment rate of 16.9%.(11) In 1971 the national average rate of unemployment for 16 to 17 year olds was 18.7%.(12)

Important here also is the amount of time lost and the frustration of trying to find a more satisfactory field of work.

The Southern Alleghenies Regional Planning Commission, in conjunction with the Appalachia Regional Commission, is tackling the broader social and economic problems at a Chamber of Commerce level by investigating and providing for the road networks as well as attempting to bring industries into the area. The educational institutions, primarily the new area vocational technical schools currently in operation or recently completed, are a part of an overall plan to improve the general economy and quality of life in the six county region* served by the Southern Alleghenies Commission.

The Admiral Peary AVTS has taken the lead in incorporating the Career Education concept in the day to day operations of the school through a flexible modular scheduling model for grades 10 through 14 developed at the school by its local research unit.(13) The TIMES (Temporally Individualized Modular Education Scheduling) Model is a delivery system for Career Education that educates students to individual occupational goals, while accommodating the different abilities and competencies of the individual student.(14, 15) Evaluation reports(16, 17) by the outside 3rd party evaluator for the second and third years of the project** are highly favorable and indicate scores in the affective domain are quite high and that students understand the Career Education concept, as presented in the TIMES Model.

Cambria County is also the site of two state school hospitals, one located in Cresson the other in Ebensburg. A significant percentage of the state school hospital residents is educationally trainable to hold some form of employment. The combined population of the two schools is 4,200, of which approximately 600 are considered trainable in a public school system. These 600 or so people are currently unemployed and should be trained to the limits of their potential by the schools. The Admiral Peary AVTS has conducted four such programs during the 1972-73, 73-74, 74-75, and 75-76 school years.(19) During the first year of the program,

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*The six counties are: Bedford, Blair, Cambria, Fulton, Huntington, Somerset

**The first year of the project was a planning year, as reported by Koble and Lareau.(18)

50 students were afforded the opportunity to visit the AVTS five days a week, for 2 hours a day for 16 weeks.(20) During the second year of the project, 100 students were afforded essentially the same opportunities as in the first year.(21) For the third and fourth years of the program, approximately 75 students enrolled.

The activities and evaluation for the first and second years of the exemplary Career Education project funded under Part D of P.L. 90-576 and conducted in grades K-12 by the local research coordinating unit of the Admiral Peary AVTS, are reported in the interim reports for the first two years of the project.(22, 23)

B. Summary

Cambria County, Pennsylvania, and more specifically the attendance area of the Admiral Peary Area Vocational Technical School located in Ebensburg, Pennsylvania, has a high percentage of youth with academic, social, economic, employment, and physical handicaps. Smooth transition between public schooling and entering the world of work does not exist for the most part in the area. Furthermore, due to the low population density, youth in the rural areas experience difficulty in obtaining employment through the Bureau of Employment Security which is located in downtown Johnstown (approximately 20 miles from site of Admiral Peary (AVTS).

Additionally, little opportunity is afforded to increase or broaden occupational aspirations or opportunities for youth, because just getting a job, any job, is the first matter of interest to most of the youth remaining in the county after high school. This may be why the job market entry and reentry rate for unemployed teenagers is at 12%. The selected process, by which the more able, academically, socially and economically leave the area to attend college, other educational pursuits, or better jobs, leaves behind a high proportion of youth at the lower end of the scale to scramble for what jobs are available. Essentially, the economy of Cambria County is involved in an endless cycle; a vicious circle whereby there is no real diversified heavy industry, aside from mining and steel, coming into the area because there is no skilled help because the schools until recently, have been rural, fourth class districts. Additionally, the geography of the area has prevented the construction of sufficient superhighways which are necessary for a transportation network to bring in industry.

C. List of References

1. *Population Study-Cambria County Comprehensive Plan*. Cambria County Planning Commission, Courthouse, Ebensburg, Pa., Dec. 1970, p. 31.
2. *Labor Economics and Labor Policy*. Reede, Arthur H., Unpublished manuscript, 1963, p. 13.
3. *Annual Manpower Planning Report: Fiscal Year 1973*. Johnstown, Pa., Bureau of Employment Security, Feb. 1972, p. 38.
4. Ibid., p. 40.
5. *A Survey of the Population, School Population, Labor Force and Industry As A Base for Vocational* Technical Education. Industrial Relations Department, St. Francis College, Loretto, Pa., 1972.
6. Cambria County Planning Commission. op. cit., p. 36.
7. Reede, op. cit., p. 12.
8. Cambria County Planning Commisssion. op. cit., p. 37.
9. *Economics of Labor Relation*. Bloom and Northrup, Richard D. Irwin, Inc., 1969, p. 235.
10. Reede, op. cit., p. 11.
11. *Manpower Report of the President*. U.S. Government Printing Office, 1972, p. 85.
12. Ibid., p. 90.
13. TEMPORALLY INDIVIDUALIZED MODULAR EDUCATION SCHEDULING: The TIMES Project, Final Report, Pennsylvania projects 19-1026, 19-2003, 29-3001, 29-4002, Lareau, E. H. and Baylis, C. A., Admiral Peary AVTS, Ebensburg, Pa., July, 1975
14. "Competency Based Education and Criterion Referenced Measures." Lareau, Edward H., *Career Education and the World of Work - A Symposium*, St. Francis College, Loretto, Pa., 27-28 September, 1973, pp. 26-33.

15. *Competency Based Career Education.* Lareau, Edward H., presented at annual Industrial Education Conference, co-sponsored by Pennsylvania State University and Centre County AVTS, Pleasant Gap, Pa., 7 April 1973.

16. *An Evaluation: Career Education* Grant No. OEG-0-72-0808; Project No. V-261055L - Pa. Project No. 19-2003 Admiral Peary AVTS; submitted by ERANDA, West Chester, Pa., June 1, 1973.

17. *An Evaluation: Career Education* Grant No. OEG-0-72-0808; Project No. V-261055L - Pa. Project No. 19-3001 Admiral Peary AVTS; submitted by ERANDA, West Chester, Pa., August, 1974.

18. *A Modular Scheduling Program for Vocational-Technical Schools: A Demonstration Model.* Koble, R., Penn State University, State College, Pa., Lareau E.H. -- Editor, Admiral Peary AVTS, Ebensburg, Pa., 1972.

19. *Exploratory Program: Vocational Education For The Handicapped* Pa. Project N. 17-2026. Fluck, Bryan V., Admiral Peary AVTS, Ebensburg, Pa., 1972.

20. *A Vocational Exploratory Program For Mentally Handicapped Students From Two State Hospitals* (Project No. 17-2026), Admiral Peary AVTS, Ebensburg, Pa., 15931, September 1973.

21. *A Vocational Education Program For Mentally Handicapped Students From Two State Hospitals* (Project No. 17-2026), Admiral Peary AVTS, Ebensburg, Pa., 15931, August, 1974.

22. *Language Experience Based Awareness + Hands On Exploration + Competency Based Preparation = A School Based Total Career Education Model*, Interim Report, USOE Project V361012, Lareau, E. H., Admiral Peary AVTS, Ebensburg, Pa., April, 1975.

23. *Language Experience Based Awareness + Hands On Exploration + Competency Based Preparation = A School Based Total Career Education Model*, Interim Report, USOE Project V361012, Lareau, E. H., and Jahoda, J. J. Admiral Peary AVTS, Ebensburg, Pa., September 1975.

CHAPTER II

GOALS AND OBJECTIVES

A. Introduction

The original objectives for this three year exemplary project in Career Education, as stated in the original proposal and modified by an addendum requested by USOE* are presented below. The objectives are classified as either process or product objectives. The process objectives are of a more general nature and must precede the product objectives. The five process objectives for the project are presented as a group followed by the specific objectives subsumed by the process objectives.

B. Process Objectives

1) To develop a "reality bound" program of Career Awareness for students in the elementary grades that will expose the students to many of the actual materials and equipment utilized in the world of work in general.

2) To develop a "reality bound" Career Exploration program for the junior high school or middle school students with actual "hands-on" experience in the exploratory sense in the various occupational clusters, and to make available to students sufficient information and experiences to allow them to chose a general direction in which they wish to pursue an occupation.

3) To develop Career Preparation programs in grades 10 thru 14, that integrate both home school and vo-tech curricula to provide job preparation for a variety of occupational areas commensurate with the students interest and ability. Where necessary, community involvement through such activities as "work experience program," will be used to supplement these Career Preparation programs.

4) To implement a placement procedure program whereby the AVTS and the school district will cooperate with the Bureau of Employment Security, other governmental agencies, business and industrial leaders, and educational leaders in the community to attack the long and short range problems of employment for those seeking it. Work experience and cooperative work study programs will be an integral part of the program. Placement in post secondary programs and higher education will also be included in the placement program.

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*Letter from Dr. Sidney P. High to Dr. Edward H. Lareau, dated April 15, 1973.

5) To develop a total educational continuum, K-14, which offers the opportunities, information and experiences to students in all grade levels so that they may be made more aware of the various occupations, relationship between occupations, and the important role that chosen careers will play in their personal, social and economic lives; and to provide all students with sufficient information commensurate with their level and ability for developing and practicing decision making skills about their lives.

C. Product Objectives*

1. The students in grades 1 through 9 will demonstrate:

   a. Significant improvement in knowledge of the world of work including:

      - Tools/occupation relationships
      - Tools/function relationships
      - Correction of common misconceptions
      - Occupational characteristics and requirements

   b. Significant improvement in the role of personal choice in occupational planning.

   c. Significant improvement in perception of work and satisfaction derived from work.

   d. Significant improvement in attitude toward the skilled trades and crafts.

   e. Significant improvement in attitude toward school.

   f. Significant increase in knowledges of occupational alternatives.

   g. Significant increase in knowledge of programs offered by the AVTS and the high school.

   h. Significant improvement in the perception of the climate of the AVTS including:

      - Instructors
      - Curriculum
      - Students
      - Facilities

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* See Appendix II-1 for Third Party Evaluation Designs for each of Three Years of Project

i. Significant improvement in the basic skills, including, but not limited to:

    - Reading ability
    - Mathematics ability

2. Students in grades 10-12 will demonstrate:

    a. Significant improvement in perception of work and satisfaction derived from school related activities.

    b. Significant improvement in the perception of the role individual choice plays in occupational planning.

    c. Significant improvement in perception of school climate including:

        - Instructors
        - Curriculum
        - Students
        - Facilities

    d. Favorable attitude toward and use of the counseling services, placement services and work experience opportunities provided them.

3. Teachers of students in the sending schools will demonstrate:

    a. Significant increase in knowledge of programs and facilities offered by the AVTS and the high school.

    b. Significant improvement in perception of the climate of the AVTS, including teachers, students, curriculum and facilities.

    c. Significant improvement in attitude toward skilled trades and crafts.

During the summer of 1974, the U.S.O.E. and Development Associates, Inc., Washington, D.C., promulgated new evaluation guidelines for Career Education projects. In view of the fact that approved testing instruments were specified in these new guidelines, the project staff interpreted them to supercede the original product objectives for years two and three. As a result of both these new evaluation guidelines and an approximate 46 percent cut in funding for the second and third project years, product objectives were modified, as follows:

Second Project Year

- Students in grades 3 and 6 will display positive attitudes toward themselves,
- Students in grades 9 and 12 will recognize that social, economic, educational and cultural forces influence their development,
- Students in grades 3, 6, 9, and 12 will know the major duties and required abilities of paid and unpaid work,
- Students in grades 6, 9, and 12 will know entry requirements for major types of paid and unpaid work,
- Students in grades 9 and 12 will be able to identify, locate and utilize sources of information to solve career decision making problems,
- Students in grades 9 and 12 will know the steps to be taken and the factors to be considered in career planning,
- Students in grades 9 and 12 will demonstrate active involvement in career decision making,
- Students in 12th grade who are leaving the formal education system will be successful in being placed in a paid occupation, in further education, or in unpaid work that is consistent with their career decision,
- The extent to which the number and type of job preparation opportunities have been expanded for young people in grades 10 through 14 will be determined, and
- The financial resources from section 142 (c) of Part D of Public Law 90-576 that were expended at each of the grade level breakouts, K to 14 will be determined.

Third Project Year

- Students in grades 6, 8, and 9 will display positive attitudes toward themselves,
- Students in grades 8, 9, and 12 will recognize that social, economic, educational and cultural forces influence their development,
- Students in grades 6, 8, 9, and 12 will know the major duties and required abilities of different types of paid and unpaid work,
- Students in grade 6 will know differences in conditions and life styles associated with different types of paid and unpaid work,
- Students in grades 6, 8, 9, and 12 will know entry requirements for major types of paid and unpaid work,
- Students in grades 8, 9, and 12 will be able to identify, locate and utilize sources of information to solve career decision-making problems,
- Students in grades 8, 9, and 12 will know the steps to be taken and the factors to be considered in career planning,
- Students in grades 8, 9, and 12 will demonstrate active involvement in career decision-making,
- Students in grade 12 who are leaving the formal education system will be successful in being placed in a paid occupation, in further education or in unpaid work that is consistent with their career decision,
- The extent to which the number and type of job preparation opportunities have been expanded for young people in grades 9 through 12, and
- The financial resources from Section 142 (c) of Part D of Public Law 90-576 that were expended at each of the grade level breakouts.

CHAPTER III

DESCRIPTION OF PROJECT DESIGN

A. General

In view of the fact that the LEA for this project is a public area vocational-technical school (AVTS) supported by five school districts, the initial project design included procedures for conducting all first year activities on a pilot study basis in one school district. All project goals and objectives were to be addressed on an exploratory basis during the first year. Successful components of the program were then to be disseminated to the other four school districts during the second and third project years for further development to meet each district's needs. Appendix III-1 summarizes the statistics for school enrollments in the participating districts.

Initial project activities were classified in five major areas and were staffed accordingly with five full time professional staff memebers. The major areas were:

- Elementary School Career Awareness,
- Middle School Career Exploration,
- Secondary - Post Secondary Level Career Preparation,
- Career guidance and counseling, and
- Administration (including test development and evaluation).

During the third quarter of the first year, the project director was notified of an approximate 46% reduction in funding for the second and third years of the project. This reduction in funding required an immediate reappraisal and reordering of project goals and objectives for the second and third years. Additionally, one full time office and two full time professional staff members had to be released at the end of the first year because of the reduced funding. Also, the USOE progress monitor ing team recommended that fewer activities in more depth in fewer schools be considered as one answer to the problem of reduced funding.

B. First Project Year (7/1/73 - 6/30/74)

The Career Education activities for the first year of the project centered around the AVTS as a microcosm of the world of work in general which could be utilized as a learning excursion and resource center. These activities are summarized here: however, a more detailed description is available in the first year interim report.*

- Elementary students in grades (1-5) were to experience, as intact classes, a series of planned and supervised learning excursions to various career clusters at the AVTS.
- Middle school students in grades (6-8) were to experience a series of planned and supervised learning excursions to specific career clusters at the AVTS, similar to those for elementary students,
- Ninth grade students were to be provided the opportunity to spend five half-days during one school week "working" with a highly skilled person at a career exploration site,
- Students in grades (10-12) were to work on an individual or small group basis with instructors in various subject matter areas to allow those students to include Career Education concepts in their course work, and
- Other support activities included career guidance and counseling, post secondary career education, community involvement, and test instrument development.

C. Second Project Year (7/1/74 - 6/30/75)

As a result of the previously mentioned 46% cut in funding and consequent recommendations by the 3rd party evaluators and the USOE progress monitoring team, the design for the second year of project included procedures for disseminating information, materials, and activities developed during the first project year to other schools supporting the AVTS. These activities are summarized here: however, a more detailed description is available in the second year interim report.*

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*Language Experience Based Awareness + Hands On Exploration + Competency Based Preparation = A School Based Total Career Education Model, Interim Report, USOE Project V361012, Lareau, E. H., Admiral Peary AVTS Ebensburg, Pa., April 1975

- The curriculum infusion approach was to be utilized in grades (1-8) for the development and implementation of curriculum units integrating traditional subject matter content with Career Education concepts,
- A system was to be developed and implemented around the Singer Vocational Evaluation Carrels to enable students in grades (6-8) to explore the nature of jobs related to the 15 USOE Career Clusters,
- The Career Experience component, wherein ninth grade students were to be provided the opportunity to spend five half-days during one school week "working" with a highly skilled person at a career exploration site, was to be further refined and made ready for transmittal, and
- Other project related activities, including work with graduate students in counselor education, undergraduates in elementary education, and U.S. Army Reserve activities for secondary students, were to be pursued.

D. Third Project Year (7/1/75 - 6/30/76)

As a result of the 3rd party evaluator's suggestions, the USOE Monitoring Team's recommendations, project staff evaluation and availability of school district students, third year objectives included procedures for working with select groups of students and teachers to put the finishing touches on successful components from the first two years. The general strategy of project staff acting as change agents for teachers, counselors, and students in relation to career education activities was continued. This strategy was followed in preparation for the assumption of Career Education activities by local personnel at the termination of the three year project. These activities are summarized here as follows:

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*Language Experience Based Awareness + Hands On Exploration + Competency Based Preparation = A School Based Total Career Education Model, Interim Report, USOE Project V361012, Lareau, E.H. and Jahoda, J.J., Admiral Peary AVTS, Ebensburg, Pa., September 1975.

- The curriculum infusion approach was continued in grades (1-8) as a means of developing and implementing curriculum units that integrate traditional subject matter content with Career Education concepts,
- Teacher in-service training for Career Education concepts was made available to teachers in grades (1-8),
- The Singer Carrels Career Exploration Component was continued in grades (6-9),
- Group counseling sessions on decision making were conducted for students in grades (6-8), and
- A model for community involvement was developed and implemented.

CHAPTER IV
RESULTS AND ACCOMPLISHMENTS

A. General

1. Process

Project objectives are presented in Chapter II as process objectives directly related to the five major components of Career Education, as stated in USOE guidelines. Product objectives for students and teachers that it was believed would be met as a result of successfully implementing the process objectives are then listed.

In Chapter III, specific procedures for each year related to the process objectives are presented. The product objectives for these procedures are presented in the Third Party Evaluator's Design for each project year. (See Appendix II-1)

In this chapter, the five major process objectives are described in terms of the actual procedures used in the classroom and in the community. The product objectives are discussed in detail in the Third Party Evaluator's Report in Chapter V. The Third Party Evaluator's Report is presented in two sections; the first section deals with third year product objectives and the second section summarizes product objectives for all three years.

It should be noted here that tabulation of results or presentation of materials in the tables and appendices of this report are for third year activities only. References are made to supportive materials contained in the first and second year interim reports.

2. Product

For the purposes of this report, product is defined as student outcomes specifically measured by testing instruments as specified in the Third Party Evaluation Design. Other "products", such as teacher prepared curriculum units, procedures for learning excursions, number of students experiencing a certain career education activity, etc., are dealt with in the various descriptions of procedures presented in the following sections.

As previously mentioned, the project originally was staffed with five full time professional employees.

Under this staffing arrangement, one important activity was test instrument development for Career Education objectives. In addition to the Third Party Evaluator's testing program, project staff conducted an in-house test development program during the first year of the project. During the third quarter of the first year, the project director was notified of an approximate 46% reduction in funding for the second and third years of the project. As a result, the ambitious undertaking of test instrument development was immediately cut back to those activities that were absolutely necessary to the operational aspects of the project. A great deal of preliminary data are documented in the first year project interim report.

As part of the planned testing program, the following had been accomplished:

- Approximately 1600 students in grades 1-5 and 9-12 have been tested as part of the development of two locally prepared test instruments,
- Approximately 105 teachers at all grade levels have been tested with a locally developed test,
- Approximately 50 parents and 75 businessmen have been tested with a locally developed test,
- Approximately 105 teachers at all grade levels, have been tested with a nationally standardized test, and
- The data from the above testing program have been analyzed and the results documented.

B. Elementary Grades (1-5) - Career Awareness

During the first year of the project, approximately 450 students in grades (1-5) from two elementary schools attended at least one learning excursion to the AVTS. A total of 45 such learning excursion to 17 of the 20 possible career areas took place during the first year. In support of these field trips, project staff had been able to complete all the administrative procedures and to provide the necessary guidelines and materials required for field trips for the elementary component. These materials are included in Appendix IV-1 of the first year interim report:

- Guidelines and Procedures for Learning Excursions

- General Safety Guidelines,
- Safety Guidelines for a particular Career Area,
- A list of typical activities and vocabulary lists for each career area,
- A master schedule of learning excursions and individual schedules for each teacher, and
- An interview list for each teacher.

Based on a teacher survey information form, teachers responded as follows, concerning field trips:

- Field trips, by and large, were felt to be beneficial; however, they could be of more value if they were more closely coordinated as an integral component of the existing curriculum,
- Teachers indicated a need for additional Career Education resource and curriculum materials,
- Teachers requested more community and resource people to assist in various Career Education units,
- Teachers wanted more participation in the selection of the sites to be visited on the learning excursions, and
- Teachers desired less emphasis on skills and more emphasis on other Career Education activities.

In addition to the learning excursions to the AVTS, several class trips were made into the community and several resource persons from the community were brought to the classroom. Included among these activities were:

- A visit to the Seldom Seen Valley Coal Mine by one class of 4th graders,
- A visit by a grocery store manager to a 2nd grade classroom,
- A visit to the St. Francis College Theater Arts center by one class of 4th graders, and
- A visit to the Johnstown Cambria County Airport as a supplemental activity for a unit in

transportation by one class of 4th graders.

It was the consensus of the elementary school teachers and research project staff that pupils in grades (1-3) would benefit more from trips into the community or from visits by community resource people to the classroom until such time that curriculum activities could be coordinated better with learning excursions to the AVTS.

Other significant first year activities in the elementary component included:

- State Senator Louis Coppersmith made a presentation on careers in public service to students in the Central Cambria School district and selected AVTS students. Nearly all 4th and 5th graders (approximately 200) in both Holy Name and Central Cambria elementary schools attended,
- A parents' night on Career Education was attended by approximately 35 parents of pupils in the two elementary schools during the first year. Parents were asked to respond to a questionnaire on Career Education prior to the presentation of the program describing the Career Education concept and how it was being implemented in the school district,
- A total of 16 elementary grade (1-5) teachers attended the 4 day workshop prior to the opening of school in August, 1973 (first year),
- A list of elementary grade Career Education objectives was created (See Appendix IV-2 -- first year interim report),
- Several Learning Activity Packets were developed in support of field trips (See Appendix IV-3, first year interim report),
- A year end newsletter was published (See Exhibit IV-3, first year interim report),
- Career Education guidelines were promulgated for use by classroom teachers (See Appendix IV-4, first year interim report) and
- Career Resource Centers (CRC) were established and piloted toward the end of the first school year (See Appendix IV-5, first year interim report).

As a result of the above described first year experiences with learning excursions, insights were gained and a modified procedure called "Curriculum Infusion" was adopted for the second and third project years.

During the second project year, orientation sessions on the "Curriculum Infusion" concept were held with chief school administrators, principals, and/or counselors from the Central Cambria, Penn Cambria, and Portage Area School districts, and the Holy Name parochial school. The main purposes of these sessions were:

- To acquaint the participating administrators and counselors with the curriculum infusion concept,
- To gain support for Career Education activities in these schools,
- To designate a Career Education supervisor responsible for each building or grade level involved, and
- To establish guidelines for participating teacher release time for in-service training.

Similar meetings with designated supervisory personnel from each building were then conducted. Purposes for these sessions were:

- To acquaint supervisory personnel with Career Education methods and procedures to be utilized in their respective schools,
- Identify teachers who would be asked to participate, and
- To make final arrangements for teacher release time for Career Education workshops.

Teacher workshops were then conducted. These ranged from a full two and one half days of release time to six half-day sessions on a bi-weekly basis. Overall the twenty one participating teachers spent an average of three full days in workshop with project personnel. The main purposes of these workshops were:

- To provide teacher orientation to the concept and philosophy of "Career Education",
- To familarize teachers with specific project goals, processes and anticipated products,

- To provide opportunities for teachers to decide whether the major focus of the curriculum unit would be subject matter oriented with Career Education "tie-ins" or Career Education oriented units with subject matter "tie-ins". (See second year interim report - Tables IV-1 and IV-2), and

- To provide opportunities for teachers to select either a team teaching approach (by grade levels or across grade levels) or an individual teacher approach for implementation of the career education units developed.

Orientation materials used to describe Career Education goals to teachers and stimulate interest and add structure to the Career Education Curriculum Infusion strategy are included in Appendix IV-1, second year interim report.

Response to workshop sessions was generally of a favorable nature. Teacher comments concerning the two and one half day session with Central Cambria sixth grade teachers are presented in Appendix IV-2, second year interim report.

Actual classroom utilization of teacher developed Career Education curriculum units was nearly 100% during the school year.

A total of seven teacher developed Curriculum Infusion Units were created and implemented during this project year by the twenty one participating teachers from the three school districts and the one parochial school. Objectives, procedures, and methods of evaluation for each of these units are presented in Appendix IV-3, second year interim report. Approximately 600 students in grades (1-5) were involved in these activities .

During the third project year, the "Curriculum Infusion" concept was further developed. An attempt was made to integrate processes utilized during the first two project years. Thus, the following Curriculum Infusion strategies were implemented:

- Teacher Curriculum Infusion Workshops were conducted by project staff with all (1-5) grade level teachers at Holy Name Elementary School (eight teachers) and at Portage Area Elementary Middle School (twenty teachers),

- At Holy Name Elementary School six out of the eight teachers chose to participate by attempting to develop instructional units integrating career education concepts and curricular structures,

- Individual consultations were conducted with all six participating teachers and project staff. These sessions conducted over a period of several weeks, resulted in the clarification of implementation strategies (see specific pre-implementation tasks defined in teacher workshop materials Appendix IV-1),
- Teachers, with assistance of project professional staff, prepared a first draft of the unit to be implemented. (Identification of specific objectives materials/resources, instructional strategies and methods of evaluation was completed),
- Project staff located materials/resources needed for implementation as identified in the teacher written units (draft form);
- In-service training was provided for teacher-aides to define their roles in implementation of teacher prepared units,
- Methods and procedures were developed to utilize the AVTS as a resource, e.g., field trips to specific shop areas related to curriculum units; and use of vo-tech students as "teachers" for providing "hands on" experiences relevant to stated objectives, and
- Final drafts of the ten units implemented were written by project staff and revised by teachers. The final written form of these units was representative of a systems approach to instructional developmental processes. (See Appendix IV-2).

Other significant activities in the elementary component were:

- The complete guidance program for the new Elementary-Middle School was written and appropriate support materials for a Career Resource Center (CRC) (See Appendix IV-3) were selected and supplied to the Portage Area Elementary Middle School (Appendix IV-4),
- All 5th grade students at Portage Elementary Middle School participated in regularly scheduled Career Awareness/Self-Awareness group guidance sessions one day per week. (See Schedules in Appendix IV-5),

- The Elementary-Middle School Counselor at Portage Area Elementary-Middle School was trained and assisted by project personnel for implementation of the Career Education component of the guidance program, and

- Career exploration activities utilizing the Singer-Vocational Evaluation System were designed and implemented involving all fifth grade students at Portage Area Elementary-Middle School (these activities are more fully discussed in the following section on Middle School Grades (6-8) Career Exploration).

C. Middle School Grades (6-8) - Career Exploration

During the first year of the project, approximately 410 students in grades (6-8) from two schools attended at least one learning excursion to the AVTS. A total of 21 learning excursions to 9 of 20 possible career areas took place during the first year. As described in the previous section on Elementary Grades - Career Awareness, the project staff completed all administrative procedures and provided the necessary guideline and materials required for learning excursions.

In addition to the field trips to the AVTS, several other related activities were carried out, as follows:

- The instructor in Marketing Technology at the AVTS made a presentation to a 6th grade English class at the middle school. This presentation was video-taped by students in the electronics course at the AVTS and used as a teaching aid in other English classes,

- Club activities became one of the focal points for Career Education information at the middle school. The four clubs started during the project year were Art, Stagecraft, Model Building (Science), and Auto Mechanics. Equipment, supplies, and audio-visual materials were procurred for these clubs,

- The auto mechanics club invited 2 local race enthusiasts to make a presentation, including slides and racing equipment, and

- A group of approximately 75 students visited the Central Cambria High School business education department.

Other significant first year activities in the middle school component included:

- Approximately 80 students in grades (6-8) attended Senator Coppersmith's presentation, as described previously under the elementary component,
- An in-service day on Career Education and Curriculum Development was conducted by the career education project staff and outside consultants from Pennsylvania State University,
- Career Resource Centers (CRC) were established for use by middle school teachers and students. (the CRC at Holy Name was set up for 2 components in the same building, as contrasted with one CRC each for the Central Cambria elementary and middle schools),
- A middle school guidance program for state certification was prepared for the Central Cambria administrative staff with the help of Career Education project staff. A definite emphasis on Guidance and Counseling was included in the proposed program,
- A six week guidance unit on Career Education was developed and piloted with 60 students at Holy Name School,
- In conjunction with the art club at the Central Cambria Middle School, four groups of students (30 total) experienced 2 or 3 sessions on Career Education, CRC use, personal interests, careers in Art, and the world of work in general, and
- A total of 21 middle school teachers attended the 4 day workshop prior to the opening of school in August, 1973.

As previously described, the "Curriculum Infusion" component was adopted for the second and third project years. For the second project year the procedures for meeting with administrators, principals, counselors, and teachers were as described for the elementary teachers.

During the second year a total of 6 teachers developed Curriculum Infusion Units were created and implemented during this project year by the 15 participating teachers from the three school districts and one parochial school. Approximately 420 students in grades (6-8) were involved in these activities.

During the third project year, the "Curriculum Infusion" concept was further developed for use in grades (6-8). As explicated in the previous discussion of the Elementary component of Curriculum Infusion, the following infusion strategies were implemented:

- Teacher curriculum infusion workshops were conducted for six instructors (grades 6-8) at the Holy Name Elementary School and four instructors (grade 6) at Portage Area Elementary-Middle School,
- At Holy Name Elementary School four out of the six teachers chose to participate by attempting to develop instructional units integrating Career Education concepts and processes into their existing curricular structures,
- As previously described in the discussion of the Elementary Grades (1-5), Career Awareness, the processes used for unit development were the same; individual ongoing teacher consultations; preparation of a first draft of the teacher developed units; location of materials and resources; in-servicing of the teacher aids; delineation of methods and procedures for utilizing the AVTS as a resource,
- Final drafts of the four units were written by project staff and revised by teachers. The final written form of these units was representative of a systems approach to instructional developmental processes. (See Appendix IV-2),
- A model for utilizing community people as resources for "hands on" and "real" career exploration experiences was designed and implemented as an adjunct to the curriculum infusion processes at Holy Name Elementary School,

- Weekly small group guidance classes were conducted by project personnel with all eighth graders at Holy Name Elementary School to augment value clarification and decision making skill development. These sessions were of a practicum nature providing a safe environment to practice these newly acquired skills (the primary resource utilized was Deciding, College Entrance Examination Board, N.Y., 1972), and

- A structure for the development of self-instructional Career Education learning stations was presented to all seventh and eighth grade teachers.

As an alternative to the first year learning excursions to the AVTS for "hands on" exploratory experience, two complete sets of Singer Vocational Evaluation Carrels were incorporated into the Career Education program during the second and third project years.

The Singer Vocational Evaluation System consists of a series of 17 work - sample stations or carrels. These stations contain all the tools required to accomplish specific tasks related to an occupational cluster, and an audio-projection filmstrip and tape cassette to visually and auditorially explain step-by-step work procedures to students. Each carrel requires about three hours on the average to complete via indvidual student participation. Tools are described and identified, potential job environments are explained, and hands-on work tasks are performed at a pace. The 17 stations include:

- Basic Tools,
- Bench Assembly,
- Drafting,
- Electrical Wiring,
- Plumbing,
- Carpentry,
- Refrigeration and Heating,
- Welding,
- Office and Sales,
- Needle Trades,
- Masonry,
- Sheet Metal,
- Cooking,
- Small Engine Service,
- Medical Service,
- Cosmetology, and
- Data Calculations.

A more detailed description of each carrel is presented in the Singer Carrel Description/Selection Form, (Appendix IV-6).

During the second project year at the Central Cambria Middle School, orientation meetings were held with supervisory personnel to discuss the Singer Carrel Program. Program approval was obtained in December of 1974 and arrangements were made for the 17 Singer Carrels to be housed in two areas, one near the Industrial Arts classroom and the other in a separate regular classroom.

Because the Central Cambria Middle School was beginning its first year as a separate administrative unit, project personnel worked closely with the middle school faculty. No formal guidance and counseling program was in existence at the middle school during it first year of operation.

In the Portage Area School District, responsibility for the Singer Carrels Exploratory Program was assigned to Mr. John Buchovecky, junior-senior high school counselor, as part of the existing guidance program. The carrels were located in a separate room near the guidance and counseling offices and an aide was hired to operate the carrels under the direction of professional guidance staff. The Career Education research project staff members acted as consultants for the operation of the carrels at the Portage Junior-Senior High School and presented an in-service orientation to 7 teachers in grades 7 through 12. The program at Portage was considered to be operational and under control with consultation, as needed, with the research project staff.

As stated previously, project personnel were much more closely involved with the Singer Carrel program at the Central Cambria Middle School. Unless otherwise specifically stated, the following description relates to the program as conducted in the Central Cambria School District during the second project year.

Rather than changing student schedules at midyear, it was decided to present a series of short orientation sessions to all 6th grade students who had double study/activity periods during the school day, and to draw interested student volunteers for the pilot program from this group. Approximately 117 students attended these sessions and 114 showed an interest in participating. Similar orientation sessions were held in the 7th grade Industrial Arts classes taught by Mr. Louis May.

Letters were sent to parents of interested students explaining the purpose of the program, the nature of the Singer Carrels, and asking their own involvement in their son's or daughter's decision as to which work station to select.

Program procedures included:

- The training of two para-professionals, Mrs. Leona Sowers and Mrs. Ethyl Girard, to maintain the program at the Central Cambria and Portage schools respectively,
- The identification and scheduling of students for the program,
- The operation and maintenance of the 17 Singer Carrel units at each school, and
- The encouragement of community support in the form of a Volunteer Parent Committee (Central Cambria School District), distribution of parental information literature, and general program information via the local media.

The two para-professionals were trained jointly by project personnel and representatives of the local authorized dealer for the Singer equipment. These orientation sessions were of a two days duration and consisted mostly of supervised practice with the Singer Carrels.

Identification and scheduling of students for the program was the responsibility of the para-professionals, in cooperation with school supervisory personnel. Student orientation was conducted in group sessions with the assistance of the other professional project staff, as previously described.

Community support for the project was gained through the formation of a Parent Volunteer Group, the members of which monitored the use of the carrels under the direction of the para-professional. The nucleus of this group was made up of 6th grade parents who were sent home with the students. Eighteen parents responded and became volunteers. Each volunteer worked either a half or full day per week.

During the third project year the Singer Carrel component was further developed for use in grades (5-8). The program procedures at the Portage Area Elementary-Middle School were as follows:

- Project staff developed a "Description/Selection Form" which was utilized by all fifth and sixth grade students. (Appendix IV-6),

- An orientation program was designed and implemented by project staff and counselors for all fifth and sixth grade students. First, a brief description of tasks and associated job areas was provided by project staff. Second, students were given the opportunity to spend five minutes at each of the seventeen learning stations for a "hands on" experience. Third students were given the "Carrel Description/Selection Form" and directed to share it with their parents before making a selection and returning it to the counselor. Finally, students returned forms to the counselor,

- A tentative schedule listing first, second, and third student choices of learning stations was constructed by project staff from completed student Description/Selection Forms,

- Weekly schedules were completed and distributed to the counselor, principal and concerned teachers,

- 127-5th grade students were involved in 185 carrel experiences (Appendix IV-7),

- 127-6th grade students were involved in 238 carrel experiences (Appendix IV-7),

- Without direct assistance from project staff, 99 additional 7th and 10th grade students utilized the Singer Carrels (Appendix IV-7). This was significant because the establishment of the Singer Carrels was initiated by project staff during the second project year, as discussed above, and

- Design and development of a "Career Exploration Evaluation Form" (Appendix IV-8), was completed by project staff. All students participating in the Singer Carrels program completed this form. A summary of the results of this evaluation is presented in Chapter Five of this report.

The program procedures at the Holy Name Elementary School were similar to those described at the Portage site. However, the following modifications were necessary:

- A modified form of the Description/Selection Form was utilized by all Eighth grade students. (Appendix IV-6),
- 43-8th graders were involved in 153 Carrel experiences (Appendix IV-7),
- Two teacher-aids were trained in the operation of the Singer Carrels. The addition of the services of these persons facilitated the expansion of the Singer program activities into the seventh grade,
- 45-7th graders were involved in 86 carrel experiences. (Appendix IV-7), and
- Using the Singer Carrel model, a small engine repair career exploration station was locally developed by project personnel and was successfully implemented (See Appendix IV-9, for a copy of these materials).

Other Activities

Other significant activities in the Middle School (5-8) Career Exploration component were:

- All fifth and sixth grade student at Portage Area Elementary Middle School participated in regularly scheduled Career Awareness/ Self Awareness group guidance sessions one day per week. These were conducted by project staff and the counselor as a team effort,
- The project staff assumed the role of "trainer" for the counselor who was implementing the Career Education component of the guidance program for the first time this year at Portage Area Elementary-Middle School,
- A model for community involvement was developed and implemented at Holy Name Elementary School,
- All seventh and eighth graders took part in a Career Education Workshop to learn about the world of work. Approximately fifty-five workers from the Ebensburg area gave an hour of time to discuss their work experiences with the students. In this way students learned first hand, from real "Career Experts," about specific jobs within the fifteen Career Clusters as identified by the USOE.

In addition to the career workshop activities, a career film festival was conducted. Other students were involved in individualized programmed learning tasks related to thirteen occupational areas. These provided them with "hands on" learning experiences to increase career awareness. In addition, individualized learning stations were established by teachers in mathematics, science, social studies and language arts (Appendix IV-10), and

- As the project ends, Portage Area Elementary-Middle School has expressed the intention of integration of the Singer carrel program into existing curriculum (See Appendix IV-11).

D. Secondary Level Grades (9-12) - Career Preparation

Perhaps the most successful activity developed during the first year of the project is the 9th grade apprenticeship program. Before any actual work with students began, it was necessary for counselors and/or administrators to fully understand the purpose of the project. The cooperation of teachers who were to be involved was essential. Participating students missed approximately half of their classes for five consecutive days. Those who were involved in the pilot study were held responsible for notifying their instructors and completing their home-school class assignments in addition to the work required at the Career Experience site.

The first student contact came through a general assembly of all ninth grade students (approximately 300) early in the school year.

Assembly activities included:

- A slide presentation of all available Career Experience sites,
- A brief written explanation of the program for student and parent information,
- A brief verbal explanation of the program,
- An application form indicating student interest and parental consent. Return date and place for this form were also indicated to students at this time, and
- A discussion session after group dismissal, to answer individual student inquires.

Approximately one week after the initial student contact, coordinators of the program were available for an entire day to collect completed application forms and to discuss items of concern to students considering the program. Study periods, time between classes, lunch periods and class release time were used as ways of freeing students to meet with project coordinators. Notification posters and public address announcements stating the date, time, and place for collection of forms and availability of home-school counselors were found to be an effective means of getting general program information to students. Approximately 185 students from a total possible of 293 students (63%) applied for the program.

Application forms were received and a master schedule of ninth grade Career Experience visits was developed and disseminated to the appropriate personnel.

A small group meeting involving all students scheduled to have a Career Experience during any given month was held to discuss:

- Safety factors and precautions on the job site,
- Special clothing required,
- Procedures for gaining permission from appropriate school personnel, and
- Directions and procedures to be observed at the job site.

Although two evaluation forms were submitted for each participating ninth grade student, it is felt that more meaningful personal interaction between school personnel and student participants (such as group counseling services) would be extremely beneficial in addition to these evaluation forms. On a 5 point rating scale (1=low and 5=high), overall program ratings by the 120 ninth grade students who participated in the Career Experience Program and completed the evaluation forms averaged 4.2.

A total of 152 9th grade students participated in the first year of the 9th grade Career Experience program. 49 students took advantage of the opportunity to have a second experience. 31 of these 49 students visited the same career area for both career experiences.

A serious concern on the part of the project staff was that this program would become a "pre-vo-tech" program rather than a true Career Exploration experience. However, results showed that only 46% of participating ninth graders applied for the 9th grade Career Experience program.

At the beginning of the second project year, Career Education project staff were invited to meet with the superintendents of the five AVTS sending schools and the director of AVTS. At that time, they all expressed interest in the program and agreed to notify their respective principals and counselors about the program. Meetings were then conducted with these principals and counselors to explain the Career Experience program. A copy of the model developed during the first year of the Career Education project was distributed at these meetings. A copy of the first year model is presented in Appendix IV-5, second year interim report.

Because of the possibility of a very large number of participants from the six participating high schools and due to the pilot nature of the expanded Career Experience program, it was decided that the number of student participants would be limited to seventeen per high school for the first semester of the 1974-'75 school year. A slight modification in the program enabled counselors to double the number of student participants to thirty-four. The modification involved sending two students each for a three day experience, doubling up on Wednesday, during any given week instead of sending one student for a five day experience. For the most part, this modification was acceptable and was utilized to increase the level of participation by all six high schools.

During the first semester of the 1974-'75 school year the program was limited to career experiences that could be provided at the AVTS. A total of 270 student stations were made available and 170 were used.

Plans had originally called for the Career Experience program to become totally operational during the second semester of the '74-75 school year. Operational problems delayed this transition at the AVTS; however, the sending schools were able to assume total responsibility for the Career Experience program utilizing a project staff member who remained the liaison at the AVTS for the duration of the school year.

During the second semester of the '74-75 school year modifications were made to the Career Experience program in order to accommodate more students. A new schedule was designed and disseminated to all involved counselors, instructors, and administrators.

Total student stations available under the new schedule was in excess of 600, of which 197 were utilized.

Two evaluation forms were completed by each participating student and journeyman or instructor. On a 5 point rating scale (1=low and 5=high), overall program ratings by 215 of the 367 students who participated in the Career Experience program averaged 4.05. The 17 AVTS teachers gave the program 3.56 average and the upperclassmen rated the program at the 3.76 level, on the average.

Survey forms completed by home school counselors and AVTS instructors were quite favorable and helped in planning future activities.

Project staff completed a set of proposed procedures for the '75-'76 school year in order to make the Career Experience program totally operational. This set of procedures, the proposed time-flow chart and a letter of formal transmittal of the program responsibility from a pilot program under project staff to an operational program under school staff, are included in Appendix IV-9, second year interim report.

Other activities at the secondary level were:

- Several advanced students in a biology class at Bishop Carroll High School conducted independent study projects in the Environmental Control Technology course at the AVTS,
- Several business education students from the participating high schools completed mini courses at the AVTS in keypunching and/or cash register operation to supplement their business education course work,
- Career Resource Centers (CRC) were established late in the school year at the high schools,
- An Information Service on Career opportunities was developed by the Career Guidance project personnel and piloted with seniors in one of the participating high schools,
- An interdisciplinary art project was completed that involved students from art, welding, and drafting,
- Six seniors in plumbing at the AVTS spent two days at Union Headquarters in Belle Vernon, Pa., learning about union organization. These seniors then made reports to the other classes in the construction trades career areas,

- A Career Militia Day was conducted in cooperation with the USAR to provide students with the opportunity to explore career possibilities in the military, with particular emphasis on the vast number of civilian related jobs available in the military,

- An expanded program, including three other AVTS's in the region, was planned during the second project year. The local USAR chapter assumed responsibility during the third project year for coordinating activities,

- A Career Education Symposium was conducted in cooperation with the Department of Industrial Relations, St. Francis College, Loretto, Pa. The Theme, "Career Education and the World of Work," focused on secondary and post secondary education, and

- A total of 9 secondary school teachers attended the 4 day initial project orientation workshop prior to the opening of school during the first project year.

Because of the previously mentioned reduced level of funding, no activities were conducted under the direct control of the project staff at the secondary level during the third project year.

E. Post Secondary and Placement

Post-secondary activities in a total career education model involve the following goals: (1) a placement program for those seeking employment at the end of 12 years of education; (2) a placement program for those students who wish to continue on to college; and (3) articulation of secondary and post-secondary programs for those desiring employment in occupations requiring more than 12 years but less than 16 years of education or training.

When the original project proposal was submitted, plans for a "floating community college" consortium arrangement were in final stages of development by secondary and post secondary education institutions in the AVTS area. As of the ending date of this project, the "floating community college" had not become a reality.

For those students entering the labor market directly from high school, normal activities of an AVTS provide both cooperative education and placement services. The career education staff has had some input into these two areas by working directly with the professional personnel involved. However, in terms of actual "in the field activities", the dangers of too much overlap and resulting detrimental effects to the total school program were such that the project staff deferred to operations personnel in this area. These facts, combined with the reduced funding for the second and third years of the project, weighed heavily against any significant successes in the post secondary component.

However, the following activities related to the objective were carried out:

During year one of the project:

- Placement of exiting students from grades 10, 11 or 12 into the labor market, instititions of higher learning, or technical institutes,
- Operation of an adult evening school offering courses from fire fighting to cake decorating to meet the needs of adults in the local labor market. Many graduates of the AVTS and local high schools attend this program. During the period October-December 1973, 551 adults were enrolled in 28 different course offerings,
- Occupational upgrading during regular business hours with local industries. Approximately 450 miners in the soft coal industry were upgraded per Bureau of Mines requirements in a two-week program built on the career education concept and offered in the AVTS facilities.
- Approximately 60 people have been trained in the facilities of four local sewing factories under the supervision of the AVTS personnel. This program is activated as needed, and
- An emergency Medical Technician program is being conducted in conjunction with Educational Projects, Inc., of Pittsburgh, Pennsylvania, AVTS facilities are being used for this program. The first class of 20 students completed the 80 hour course in cooperation with a local hospital. A second class was conducted during February 1974.

During year two of the project:

- Preparation of a proposal for certificate and associate degree programs for first line supervisory personnel,
- Development of post-secondary spinoffs, in (a) emergency medical training, (b) mine electrical maintenance upgrading, and (c) nutrition program,
- Establishment of a cooperative program with Indiana University of Pennsylvania by providing a field experience for graduate students in counselor education,
- Development of a cooperative program with St. Francis College involving curriculum construction of career education modules by undergraduate elementary education majors, and
- Initiation of a cooperative effort in skill development with the U.S. Army Reserve for careers in the military.

Three of the above activities are discussed briefly below:

Approximately 60 pre service teachers, juniors and seniors enrolled in "The Teaching of Elementary Social Studies" education course at St. Francis College, Loretto, Pa., were oriented to the Career Education philosophy and curriculum infusion method of Career Education unit development. As an assignment, students were asked to select a chapter from a textbook used in project area schools and write a supplemental unit complete with the concepts to be developed, performance objectives, classroom activities, materials needed, and the local resources available. Copies of units developed during this time are included in Appendix IV-10, of the second year interim report.

Two graduate students majoring in Counselor Education at Indiana University of Pennsylvania served a field experience internship under the supervision of project staff. Their major responsibilities included:

- Familiarizing themselves with Career Education concepts,
- Examining and utilizing all materials in the Career Resource Centers (CRC),
- Setting up in-service sessions (approximately 1 hour in length) for all the students and teachers at Holy Name to explain the purpose and use of the CRC, and

- Organizing a 6th grade activity dealing with Treasure Hunt, a commercially purchased six week program designed to build student self awareness, self confidence, and introduce the decision making process.

The Careers Militia Program started out as an "in house" activity at the Admiral Peary AVTS. Shortly after the school year got underway, three other AVTS's joined with Admiral Peary AVTS and the USAR to promote a regional program. The other three schools are:

- Greater Johnstown AVTS,
- Altoona AVTS, and
- Somerset AVTS.

About one third of the way through the school year the USAR assumed responsibility and the Admiral Peary AVTS representative attended meetings as a liaison with the expanded project activities. These activities are best summarized by listing the program goals, which are contained in the final USAR report. A copy of the Career Militia Report and related correspondence is included in Appendix IV-12 of the second year interim report. The program procedures were as follows:

- "Vo-Tech curriculums are evaluated in terms of related military occupation specialities (MOS),
- Junior (11 grade) students, in each MOS related curriculum, receive familiarization instructions concerning the opportunities and responsibilities of militia persons in local militia units,
- Senior (12th grade) students are given the opportunity to enlist in local militia units of their choice,
- Senior students enlist to fill MOS positions for which their Vo-Tech curriculums are preparing them, they are assigned on-the-job duties in the MOS field, they attend all required training formations,
- Upon graduation, those students who qualify for the MOS in which enlisted, will be awarded that MOS. Those students whose curriculums do not fully qualify them for the MOS in which enlisted will enroll in a supplementary curriculum in a continuing education program until fully qualified,

- When MOS qualified the militia person may be ordered to active duty for Basic Training. Upon completion of basic training the militia person will be promoted to the pay grade for which MOS qualified,

- Advanced Individual Training will be served in the MOS for which the militia-person is qualified and needed, or in training for a higher level, if neither requirement exists the militia-person would be returned to his assigned militia unit,

- Militia Career Liaison Officers are officers or NCO's who have a specific MOS expertise, these persons become resource counselors in a related Vo-Tech curriculum, as such they are responsible for the Militia Careers familiarization course, and

- A council composed of a senior Army Resource commander and a National Guard Commander coordinate the Militia Careers Program with the Director(s) of Vo-Tech School(s) serving the geographic area from which militia units draw their personnel."

F. Total Career Education Continuum (K-12)

The total Career Education Continuum was interpreted by project staff to involve activities both inside and outside the classroom. Because guidance and counseling is an activity that services all grade levels, it was deemed that this would be the best vehicle for addressing this objective.

Career guidance and counseling is viewed as a curriculum oriented activity. Project counseling personnel assumed the role of consultants for guidance related activities by assisting participating teachers and other project personnel. As stated in the U.S. Chamber of Commerce booklet, "Career Education..."*, the functions of counseling and guidance personnel in a total career education program are as follows:

- Serve as resource consultant to teachers, students, administrators, parents, and others seeking information,

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* "Career Education: What It Is And Why We Need It." Chamber of Commerce of The United States, Washington, D.C., 1975.

- Invite technical and vocational school representatives to college night or career day programs along with other representative and employers,
- Provide information related to a wide variety of career options,
- Serve with other education personnel as liaison between the school and the business-industry-labor-professional community, and
- Assist in placement of graduating students with employers in addition to providing guidance to others going on to technical schools or colleges.

In addition to previously described activities, accomplishments towards this objective under Career guidance and counseling personnel included the following:

- Development and implementation at the elementary level of supplemental affective units dealing with the worth of the individual person,
- Development and implementation at the middle school level of affective units dealing with interest, ability, and choice in relationship to the career decision process,
- Development and implementation of the Career Resource Centers (CRC),and
- Assistance in the testing program.

Work with the community towards satisfying this objective dealing with the Career Education Continuum included:

- A parents' night held at the AVTS with approximately 35 persons attending. A discussion of the Career Education concept and more specifically, the involvement of local schools in this project was conducted. A slide presentation showing current project activities was used as a starting point for discussion,
- In-school activities, including field trips involving parents. Also, several resource persons from the community have made classroom presentations, as described previously,

- A class in vocational counseling from the University of Pittsburgh visited the project site during March. Project staff made a presentation on the Singer Carrel Exploration Program,

- Project staff made a slide presentation on Career Education to the Ebensburg Women's Club during February and to the Penn Cambria School District Title I Parents' Council during March,

- Curriculum materials developed to date were disseminated at the National Career Education Conference in Dallas, Texas, 27-30 January, 1975, and at a Career Education Day, sponsored by Penn State University, at its Altoona Campus, during April, 1975, and

- Project staff participated in a local radio program to discuss the current Career Education program.

CHAPTER V

THIRD PARTY EVALUATION REPORT

PART A

LANGUAGE EXPERIENCE BASED AWARENESS

+

HANDS ON EXPLORATION

+

COMPETENCY BASED PREPARATION

=

A SCHOOL BASED TOTAL CAREER EDUCATION MODEL

Exemplary Project V361012

An Evaluation Submitted To:

Dr. Edward Lareau
Associate Director for Research
Admiral Peary Vo-Tech School
Ebensburg, PA 15931

Submitted by:

Educational Research and
Development Associates
Downingtown, PA 19335

MAY, 1976

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I. Background and History

The Career Education Project is finishing its third year of operation under Part D of Public Law 90-576. It is coordinated by the Research Staff of Admiral Peary Area Vo-Tech. School and has previously served children in the following school districts:

A. Central Cambria
B. Portage
C. Blacklick Valley
D. Cambria Heights
E. Penn Cambria
F. Parochial (Holy Name and Bishop Carroll)

As the Project moved into its third and final year, it became obvious that reductions in support and personnel dictated a concentration of its resources. In the fall of 1975 there were only two professionals in addition to the Project Director available for Project activities. It was decided, therefore, that concentrating on Portage Area (grades 5 and 6) and Holy Name School (grades 6, 7 and 8) would yield the greatest educational return. The evaluation design produced in accordance with USOE guidelines in September, 1975, was modified to reflect a concentration on grades six through nine. Several objectives pertaining to grade 12 were retained to determine the persistence of treatment effect in the absence of project activities.

II. Evaluation Design

The following evaluation design was developed in accordance with the grant application released by the Project Director and the evaluation guidelines formulated by the U. S. Office of Education.[1,2,3] The major problems encountered were:

(1) Severe reductions in project funding level with consequent restriction of evaluation activities. Emphasis has been placed on student outcomes or products. Very few resources are available to evaluate the educational process (treatment) or project management.

(2) The need to develop an evaluation design rigid enough to detect treatment effect yet flexible enough to accommodate a dynamic, changing project.

Evaluation Questions

The Evaluation questions are naturally a function of the project's objectives. The objectives in terms of student outcomes are as follows:

USOE#	Objective	Grade Level
1	Students will display positive attitudes toward themselves	6, 8, 9
2	Students will recognize that social, economic, educational and cultural forces influence their development	8, 9, 12
3	Students will know the major duties and required abilities of different types of paid and unpaid work	6, 8, 9, 12
4	Students will know differences in conditions and life styles associated with different types of paid and unpaid work	6

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[1] Hoyt, Kenneth B., Evaluation of Career Education and the Law (Draft), USOE, Washington, D. C., 1975.

[2] "Draft Guidelines for the Evaluation of Career Education Program" Development Associates, Washington, D. C., August 15, 1974.

[3] "Summary of Results Career Education Instrument Review Conducted for USOE" Development Associates, Washington, D. C., September 5, 1975.

USOE#	Objective	Grade Level
5	Students will know entry requirements for major types of paid and unpaid work	6, 8, 9, 12
6	Students will be able to identify, locate and utilize sources of information to solve career decision-making problems	8, 9, 12
7	Students will know the steps to be taken and the factors to be considered in career planning	8, 9, 12
8	Students will demonstrate active involvement in career decision-making	8, 9, 12
9	The financial resources from Section 142 (c) of Part D of P. L. 90-576 that were expended at each of the grade level breakouts	K to 12

The evaluation questions are specific to each objective and with the exception of objective 9 are stated in pre-post, non-control group terms. For example, the evaluation question appropriate to Objective 1 is:

(1) Do students participating in the Career Education program show statistically significant improvement in positive attitudes toward themselves as measured by the Self-Appraisal Inventory at grades 6, 8 and 9?

The objectives and evaluation questions are primarily concerned with student outcomes. The principal evaluation activity directed toward Treatment (Process) or Management will be observations, questionnaires, teacher logs, etc., to determine if educational activities previously mentioned were actually conducted. In addition, questionnaires were administered to determine effectiveness of Singer Carrels and Community Involvement.

Design

The evaluation design employed with objectives 1 through 8 was a pre-test, post-test non-control group design. Campbell and Stanley[4] refer to it as pre-experimental design #2. It provides marginal protection against the threats to internal and external validity. The major reasons for selecting this design are as follows:

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[4] Campbell, Donald T. and Stanley, Julian C., Experimental and Quasi-Experimental Designs for Research on Teaching.

(1) Career Education activities exist in all schools to which the project has access. A non-contaminated control group could not be located within the districts.

(2) A natural reluctance to serve as a control group on the part of non-district classes.

(3) Limited funding level required cuts in the program's educational activities. Even if a control group could be located (unlikely), it would be difficult to justify diverting the additional funds required for testing from program activities to evaluation.

It would be desirable for USOE to fund a study to determine normal growth rates for various pre-post test intervals on the instruments approved by its panel. In this way any project's pre-post gains could be compared to a contrast group of similar socio-economic background children not involved in Career Education.

Objective 9 consists of allocating all expenses to the grade categories provided.

Data Sources

For Objectives 1 through 8 direct data sources and current student test data were utilized. The source of data for Objective 9 will be the financial records of the Project Director.

Data Collection Instruments

The data collection instruments associated with the various objectives are as follows:

Objective USOE#	Instrument	Grade Level
1	Self-Appraisal Inventory	6, 8, 9
2	Career Development Inventory - C	8, 9, 12
3	Career Education Questionnaire	6
	Career Development Inventory - C	8, 9, 12
4	Career Education Questionnaire	6
5	Career Education Questionnaire	6
	Career Development Inventory - C	8, 9, 12
6	Career Development Inventory - C	8, 9, 12
7	Career Development Inventory - C	8, 9, 12
8	Career Development Inventory - A & B	8, 9, 12
9	Examination of Project's Financial Records	K to 12

All standardized instruments have been approved for these objectives by the USOE panel.

Sampling Plan

Stratified random sampling procedures were employed. The approximate distribution of participating students and students tested by school or district is as follows:

Target School	Grade	Population	Actual Sample	Planned Sample
Portage	6	100	24	30
Holy Name	8	60	35	30
Portage	9	100	23	30
Portage	12	100	30	30
		360	112	120

Planned Sample = 33%
Actual Sample = 31%

The differences between the sizes of the planned and actual samples are minimal.

Data Analysis Plan

For objectives 1 through 8, a pre-test, post-test non-control group design was employed. The data was analyzed by grade level using the correlated "t" test at the .05 level (two-tailed). The data was also analyzed by strata (school or district).

Data Collection Plan

ERANDA ordered, distributed, and scored all tests and questionnaires. The tests were administered by a trained research assistant.

III. Data Produced by Evaluation Design

The Self-Appraisal Inventory (SAI) was used to determine the extent to which objective #1 was achieved.

The SAI is a series of 77 statements which a child indicates as being true or untrue for him. His score is the number of positive statements he indicates are self descriptive plus the number of negative statements he considers not to be self descriptive. Kuder-Richardson reliabilities for the SAI averaged .914.

TABLE I

PERFORMANCE OF PORTAGE AREA AND HOLY NAME STUDENTS
ON THE SELF-APPRAISAL INVENTORY

Grade	N	Pre-Mean	Post-Mean	Gain	"t"	Probability
6	24	56.42	55.79	-.63	-.27	NS
8*	35	60.40	62.37	1.93	1.82	NS
9	22	52.41	53.32	.91	.43	NS

*Holy Name School

Table I indicates that objective #1 was not achieved. The eighth grade students from Holy Name School showed an improvement of almost two points (3%) which is commendable given their initial high level of attitude and a natural tendency for attitude to deterioriate over the academic year.

The Career Development Inventory Scale C (Information and Decision making) was employed to determine achievement of objectives 2, 3, 5, 6 and 7. Tables II, III and IV indicate that all these objectives were achieved at the eighth grade level at Holy Name School. The improvement observed on Scale C at the ninth and twelfth grades in Portage Area were not statistically significant. The CDI A and B scales (A = Planning Orientation; B = Resources for Exploration) indicate that objective eight was achieved with the Holy Name eighth graders and partially achieved with the Portage Area twelfth grade students. The Portage Area ninth grade failed to achieve objective eight. The fact that the eighth and twelfth grade classes showed significant improvement in Total Score is commendable.

TABLE II

PERFORMANCE OF EIGHTH GRADE HOLY NAME STUDENTS ON THE CAREER DEVELOPMENT INVENTORY

(N = 33)

Scale	Pre Mean	Post Mean	Gain	"t"	Probability
Planning Orientation (A)	92.27	99.42	7.15	2.47	.05
Resources for Exploration (B)	233.85	254.85	21.00	2.58	.05
Information and Decision Making (C)	13.48	15.61	2.13	3.52	.01
Total	339.60	369.88	30.28	3.37	.01

TABLE III

PERFORMANCE OF NINTH GRADE PORTAGE AREA STUDENTS ON THE CAREER DEVELOPMENT INVENTORY

(N = 23)

Scale	Pre Mean	Post Mean	Gain	"t"	Probability
Planning Orientation (A)	93.48	94.56	1.08	.44	NS
Resources for Exploration (B)	244.04	229.48	-14.56	-1.39	NS
Information and Decision Making (C)	12.48	12.96	.48	.44	NS
Total	350.00	337.00	-13.00	-1.17	NS

TABLE IV

PERFORMANCE OF TWELFTH GRADE PORTAGE AREA STUDENTS ON THE CAREER DEVELOPMENT INVENTORY

(N = 30)

Scale	Pre Mean	Post Mean	Gain	"t"	Probability
Planning Orientation (A)	104.27	107.37	3.10	1.05	NS
Resources for Exploration (B)	239.30	252.90	13.60	2.36	.05
Information and Decision Making (C)	18.80	19.57	.77	1.23	NS
Total	363.37	379.83	17.46	2.42	.05

At the sixth grade level, objectives 3, 4 and 5 were assessed by means of the Career Education Questionnaire. Table V indicates non attainment of these objectives since the gain of 1.83 points was attributable to chance.

TABLE V

PERFORMANCE OF SIXTH GRADE PORTAGE AREA STUDENTS ON THE CAREER EDUCATION QUESTIONNAIRE

(N = 24)

Pre-Mean	Post-Mean	Gain	"t"	Probability
26.96	28.79	1.83	1.35	NS

The final objective (#9) deals with financial disbursements and will be covered by the Project Director in subsequent reports.

The total array of product objectives with the extent of their achievement is depicted in Table VI. The symbol + indicates the objective was achieved, 0 shows partial achievement, and - means the objective has not been achieved. NA indicates the objective was not applicable at a particular grade level.

TABLE VI

ACHIEVEMENT* OF PRODUCT OBJECTIVES BY PROJECT STUDENTS

	Grade Level			
Objective	6	8	9	12
1. Students will display positive attitudes toward themselves.	-	-	-	NA
2. Students will recognize that social, economic, educational and cultural forces influence their development.	NA	+	-	-
3. Students will know the major duties and required abilities of different types of paid and unpaid work.	-	+	-	-

TABLE VI (CONTINUED)

Objective	Grade Level 6	8	9	12
4. Students will know differences in conditions and life styles associated with different types of paid and unpaid work.	-	NA	NA	NA
5. Students will know entry requirements for major types of paid and unpaid work.	-	+	-	-
6. Students will be able to identify, locate and utilize sources of information to solve career decision-making problems.	NA	+	-	-
7. Students will know the steps to be taken and the factors to be considered in career planning.	NA	+	-	-
8. Students will demonstrate active involvement in career decision-making.	NA	+	-	0
*Percentage of applicable objectives partially or totally achieved	0	85.7	0	16.6

IV. The Educational Process

The evaluation design employed complied with the USOE guidelines and concentrated on student behaviors (the educational product). The basic evaluation has been expanded to increase its sensitivity to the educational process employed by the Career Education Project. It should be pointed out that Project activities were delayed due to the amount of time spent trying to concentrate resources on the ninth grade of one school system. Several months of effort were expended before the unworkability of that approach became apparent.

The major activities covered in this section are as follows:

Staff Development

The Project lost the services of one of its key professionals midway through the year. The Project was fortunate in that the para-professional aide worked very closely with the professional staff and had the necessary credentials to be promoted to professional status. The services formerly performed by the para-professional aide were secured on a contractual basis from the participating schools. The Project is commended for having a "Career Ladder" for its personnel.

In view of its very small staff, the Project has done a commendable job of improving the Career Education skills of the Portage and Holy Name staff. Since Portage was implementing a new curriculum and moving into a new building, its staff was not as available for development as was the Holy Name faculty. The staff training sessions were specific, intensive and on a small group basis. Three full scale in-service sessions were held for the entire staff and faculty of Holy Name School. Interviews with faculty members indicate satisfaction with their development.

Curriculum Infusion

The curriculum infusion effort was more evident in Holy Name School than it was in Portage. The reason for this phenomenon was the demands placed on the Portage staff by moving into a new building and adopting a new curriculum. The Career Education Project staff wisely decided to concentrate their curriculum infusion activity in Holy Name School since that faculty was not distracted by a host of other changes. The curriculum infusion was very successful with some of the more notable activities being:

Grade 1 - A store to involve math, reading, health, economics, etc.

Grade 3 - Units on sewing and building trades

Grade 6 - A message design unit involving media, visual arts, filming, etc.

Grade 8 - Health professions, math careers involving use of calculator, and newspapers and their occupations.

Three Career Education workshops were held at Holy Name School exposing all teachers and the principal to the concept. Ten of the fourteen teachers have started curriculum infusion activities.

Singer Vocational Evaluation System

The project has cooperated with school districts in the establishment of Singer Vocational Evaluation Systems in Portage Area Schools.

These systems consist of 17 stations where the student is acquainted with the tools, duties, and skill requirements of a number of occupations. The 17 stations are as follows:

#1 - Basic Tools
#2 - Bench Assembly
#3 - Drafting
#4 - Electrical Wiring
#5 - Plumbing and Pipe Fitting
#6 - Carpentry and Woodworking
#7 - Refrigeration, Heating and Air Conditioning
#8 - Soldering and Welding
#9 - Office and Sales Clerk
#10 - Needle Trades
#11 - Masonry
#12 - Sheet Metal
#13 - Cooking and Baking
#14 - Small Engine Service
#15 - Medical Service
#16 - Cosmetology
#17 - Data Calculating and Recording

In addition to the two Singer sets located in Portage Area for grades 5 - 12, the Project has constructed several career exploration stations similar to those produced by Singer. These Project developed stations are located in the Holy Name School. The Project staff has been very successful in producing high-quality career exploration stations. The station dealing with the repair and maintenance of small engines is especially impressive. The stations in Portage and Holy Name are supported by para-professionals contracted for by the Project.

A questionnaire was administered to a sample of students who used the Career Exploration Stations at the two schools.

Tables VII through X indicate the favorable reaction students had to this experience. Between 79.8 percent and 80.5 percent of the students strongly agreed that the program was a valuable experience for them. The only notable difference between the schools was the percentage of students who strongly agreed that the experience helped them think about their future plans. Holy Name School (26.3 percent and 21.7 percent) were considerably below Portage Area (71.4 percent and 72.3 percent). Part of this difference is attributable to the fact that Portage students had access to all 17 stations while Holy Name students were limited to less than half that number. In addition, Portage Area students had intensive group counseling to assist students in incorporating experience into career planning.

Community Involvement and Dissemination

Due to staff restrictions, the community involvement effort was concentrated at the Holy Name School. Parents were involved in curriculum development and served as resource persons. The community involvement culminated during the week of April 12 when 90 students at Holy Name School took part in a career workshop. Approximately 55 workers from the Ebensburg area visited the school to discuss their work and experiences with 7th and 8th grade students. The students had a Career Education Film Festival during this period as well. In addition, six field trips were conducted to allow students on-site work experience.

In order to determine student satisfaction with the Career Week, a questionnaire was administered.

TABLE VII

REACTION OF SEVENTH GRADE HOLY NAME STUDENTS TO THEIR PARTICIPATION IN THE CAREER EXPLORATION STATIONS

(N = 19)

Question	% Strongly Disagree	% No Opinion	% Strongly Agree	% No Response
My overall interest in this career area has increased.	0	10.5	89.5	0
I know more about job skills because of this experience.	0	31.6	68.4	0
I better understand my abilities to do this kind of work.	5.3	31.6	63.2	0
This experience has helped me think about my future career.	15.8	52.6	26.3	5.3
I feel that this program was a valuable experience for me.	0	21.0	79.0	0

TABLE VIII

REACTION OF EIGHTH GRADE HOLY NAME STUDENTS
TO THEIR PARTICIPATION IN THE CAREER EXPLORATION STATIONS

(N = 106)

Question	% Strongly Disagree	% No Opinion	% Strongly Agree	% No Response
My overall interest in this career area has increased.	7.5	44.3	48.1	0
I know more about job skills because of this experience.	4.7	16.0	78.3	.9
I better understand my abilities to do this kind of work.	3.8	17.0	79.2	0
This experience has helped me think about my future career.	19.8	58.5	21.7	0
I feel that this program was a valuable experience for me.	3.8	15.1	80.2	.9

TABLE IX

REACTION OF FIFTH GRADE PORTAGE AREA STUDENTS TO THEIR PARTICIPATION IN THE CAREER EXPLORATION STATIONS

(N = 126)

Question	% Strongly Disagree	% No Opinion	% Strongly Agree	% No Response
My overall interest in this career area has increased.	4.8	19.8	75.4	0
I know more about job skills because of this experience.	.8	13.5	84.9	.8
I better understand my abilities to do this kind of work.	4.0	22.2	73.8	0
This experience has helped me think about my future career.	4.8	23.8	71.4	0
I feel that this program was a valuable experience for me.	4.8	17.5	77.8	0

TABLE X

REACTION OF SIXTH GRADE PORTAGE AREA STUDENTS TO THEIR PARTICIPATION IN THE CAREER EXPLORATION STATIONS

(N = 159)

Question	% Strongly Disagree	% No Opinion	% Strongly Agree	% No Response
My overall interest in this career area has increased.	5.0	19.5	75.5	0
I know more about job skills because of this experience.	5.7	19.5	74.8	0
I better understand my abilities to do this kind of work.	5.0	22.6	71.7	.6
This experience has helped me think about my future career.	5.0	22.0	72.3	.6
I feel that this program was a valuable experience for me.	4.4	15.1	80.5	0

Table XI indicates that the community participation was highly successful. Over 90 percent of the students agreed that the program was a valuable experience and that they had increased their knowledge about job skills. The fact that most students are not yet committed to the type of work they explored is very appropriate.

Dissemination of the Project's activities has taken various forms. Articles about the Project have appeared in the local publications. Additional efforts to spread awareness of the Project include:

1. A new elementary school counselor in one of the participating school districts received a Career Education orientation and materials from project personnel.

2. A mini-grant proposal, incorporating Career Education concepts into a middle school Home Economics Program was written for a participating School District.

3. Project personnel conducted an in-service day in Career Education for secondary English teachers and junior-senior high school guidance counselors at Chestnut Ridge School District, Pleasantville, Pa.

4. A Career Resource Center material list and folder on Career Guidance was supplied to the Dale Middle School, Johnstown, Pa.

5. Copies of the U. S. Chamber of Commerce publication *Career Education* have been distributed to superintendents, principals, and counselors in the five school districts supporting the Admiral Peary AVTS and to the administrative and counseling staff and faculty of the AVTS.

6. Through various channels at the national level, descriptions of project materials are being included in national dissemination activities. As a result, requests for specific curriculum units developed by the project during the first two project years have been requested by schools in the following areas:

    Hattiesburg, MS
    Jeffersonville, KY
    Yorktown Heights, NY
    Glendale, AZ
    South Portland, ME
    Brandywine, MD
    Boston, MA
    Fort Dodge, IO
    Athens, GA
    North Troy, NY
    Gallup, NM

TABLE XI

REACTION OF HOLY NAME STUDENTS TO THEIR PARTICIPATION IN CAREER WEEK

Statement	7th Grade (N = 40) % Yes	 % Maybe	 % No	8th Grade (N = 38) % Yes	 % Maybe	 % N
1. My overall interests in these career areas have increased.	78.9	21.1	0	94.7	5.3	0
2. I know more about job skills because of these experiences.	92.3	5.1	2.6	94.7	5.3	0
3. I know about more jobs related to these career areas.	41.0	51.3	7.7	55.3	42.1	2.6
4. I would enjoy doing these types of work as a future career.	22.5	77.5	0	18.4	71.0	10.5
5. These experiences have helped me think about my future career.	82.0	15.4	2.6	84.2	15.8	0
6. I feel that this program was a valuable experience for me.	97.4	2.6	0	94.7	5.3	0

Career Resource Centers

In cooperation with local school districts and funding agencies, the project had previously established CRC's at Portage Elementary and High School, Bishop Carroll High School, Central Cambria High School, Central Cambria Middle School, and Holy Name Elementary School. In many cases the project staff helped secure grants to establish or improve the CRC. The major services of the CRC include:

1. Providing career orientation and decision-making information to students and teachers.
    a. Printed materials, filmstrips and cassette tapes.
    b. Career planning kits
    c. Decision making units.
    d. Self-understanding units (interest, aptitudes and abilities).
2. Providing curriculum development consultation for teachers.
3. Arranging for learning excursions and career consultants through the Admiral Peary AVTS, local business and industry.
4. Providing (secondary) students with the opportunity to develop job readiness.
5. Providing (secondary) students with job placement assistance.

Despite severe financial restrictions, the Portage and Holy Name CRC's have been strengthened and the staff has tried to respond to all requests for assistance from CRC's established in previous years. There was extensive in-service training conducted at Holy Name School for teachers, students and librarians to help them utilize the CRC's.

Counseling Component

With the assistance of local school personnel, the project staff has conducted regular group counseling sessions at Portage Area School. These sessions were usually conducted in conjunction with the Singer Exploration Carrells. The primary purpose of the counseling sessions was to enhance the self-awareness and decision-making skills of the students. Observations indicate the sessions were conducted in a theoretically sound manner and elicited considerable student participation.

At Holy Name School small groups (N = 10) met weekly for value clarification counseling sessions.

V. Conclusions and Recommendations

The major conclusions substantiated by test data, questionnaires, observations, etc., are:

1. The staff has managed to maintain a viable Career Education Project despite reductions in financial support, staff and LEA cooperation.
2. All process objectives of the Project have been achieved. The treatment is in accord with the proposal and amended evaluation design.
3. The Holy Name segment of the Project was very successful in achieving 85.7 percent of its product objectives. The Portage segment was less successful.
4. Staff development, both within the project staff and the Holy Name faculty, was very good. This activity was less pronounced at Portage due to the adoption of a new curriculum with its requisite training.
5. Curriculum infusion was very successful at Holy Name School with over 70 percent of the teachers participating.
6. The Singer and staff-developed vocational evaluation systems received high student ratings at both schools.

7. Community involvement at the Holy Name School has been an outstanding success. Student and community reaction has been very favorable.
8. The group counseling sessions are a valuable segment of the Career Education Project at both schools.

The following recommendations seem appropriate:

1. The Intermediate Unit consider absorbing the Career Education Project as part of its services to school districts.
2. A full-fledged Parents and Community Advisory Council should be established.

Comments

The final year of a federally funded project is very difficult for the staff. Local school districts are reluctant to get involved in a project which will probably terminate at the year's end. The staff members are anxious about their own careers and the meaningfulness of their activity. The entire project staff, from Director to clerk, are to be commended for the manner in which they have given themselves to the Project right up to the last day. If anything, our observations indicate that the staff became more dedicated and proficient as the termination date for Federal support approached. The Project has made a significant contribution to Career Education in the APVTS service area. It is hoped that a mechanism for its continuance can be found. To abandon at this time what has been accomplished at great cost would be most unfortunate.

ADDENDUM

To Third Party Evaluator's Report

As Prepared By The

Project Director

for

Scope of Work Objective #6

Approximate Expenditures of Project Funds By Grade Levels

Grade Levels	Students	Total Cost	Cost/Student
K-3	150	$19,950	$ 133.00
4-6	314	41,800	131.21
7-9	148	19,950	134.78
10-12	99	13,300	134.34
Post Secondary	-0-	-0-	-0-

CHAPTER V
PART B

THREE YEAR EVALUATION OF INSTRUCTIONAL PRODUCT OBJECTIVES

Section V-A covered the extent to which the product objectives were achieved during the Project's third year of operation. During the 1974-1975 academic year, the Project employed the same evaluation design but addressed itself to a greater number of product objectives. The instructional product objectives and the measuring instruments employed during the second year were as follows:

Scope of Work #	USOE#	Objective	Grade Level	Instrument
1	I c	Students will display positive attitudes toward themselves	3, 6	Self Observation Scales
1	I d	Students will recognize that social, economic, educational and cultural forces influence their development	9, 12	Career Development Inventory Scale C
2	IV a	Students will know the major duties and required abilities of different types of paid and unpaid work	3, 6, 9, 12	Career Ed. Questionnaires (3-6) Career Development Inventory (9-12) Scale C
2	IV b	Students will know differences in conditions and life styles associated with different types of paid and unpaid work	3, 6	Career Ed. Questionnaire
2	IV c	Students will know entry requirements for major types of paid and unpaid work	6, 9, 12	Career Ed. Questionnaires (6) Career Development Inventory (9-12) Scale C

Scope of Work #	USOE #	Objective	Grade Level	Instrument
3	V c	Students will be able to identify, locate and utilize sources of information to solve career decision-making problems	9, 12	Career Development Inventory Scale C
3	V e	Students will know the steps to be taken and the factors to be considered in career planning	9, 12	Career Development Inventory Scale C
3	V f	Students will demonstrate active involvement in career decision-making	9, 12	Career Development Inventory Scales A and B
4	VIII	Students who are leaving the formal education system will be successful in being placed in a paid occupation, in further education or in unpaid work that is consistent with their career decision	12+	Questionnaires to 1975 Graduates and Dropouts
5	NA	The extent to which the number and type of job preparation opportunities have been expanded for young people in grades 10 through 14	10-14	Questionnaire to Counselors and Co-op Directors
6	NA	The financial resources from Section 142 (c) of Part D of P. L. 90-576 that were expended at each of the grade level breakouts	K-14	Examination of Project's Financial Records

The evaluation questions were specific to each objective and with the exception of objectives 4-6, were stated in pre-post, non-control group terms.

The objectives were primarily concerned with student outcomes. The only evaluation activities directed toward Treatment (Process) or Management were observations, questionnaires, teacher logs, etc., to determine if educational activities previously mentioned were actually conducted and what type of client response they evoked.

The evaluation design employed with objectives 1 through 3 was a pre-test, post non-control group design. Campbell and Stanley[1] refer to it as pre-experimental design #2. It provides marginal protection against the threats to internal and external validity. The major reasons for selecting this design are as follows:

---

[1] Campbell, Donald T. and Stanley, Julian C., Experimental and Quasi-Experimental Designs for Research on Teaching.

(1) Career education activities exist in all schools to which the project has access. A non-contaminated control group could not be located within the districts.

(2) Lack of lead time prevented the staff from overcoming a natural reluctance to serve as a control group on the part of non-district classes.

(3) A reduced funding level required cuts in the program's educational activities. Even if a control group could be located (unlikely) it would be difficult to justify diverting the additional money required for testing from program activities to evaluation.

It would be desirable for USOE to fund a study to determine normal growth rates for various pre-post test intervals on the instruments approved by its panel. In this way any project's pre-post gains could be compared to a contrast group of similar socio-economic background children not involved in Career Education.

Objectives 4 and 5 were criterion-referenced. The criteria for Objective 4 was that 60 percent of the responding students (1975 graduates) indicate that they had been successful in locating a paid occupation, further education or unpaid work consistent with their career decision. The criteria for Objective 5 was a 20 percent increase in the number and type of job preparation opportunities for students between the current year and the year preceding the project.

Objective 6 consisted of allocating all expenses to the grade categories provided.

For objectives 1, 2 and 3 a pre-test, post-test non-control group design was employed. The data was analyzed by grade level using the correlated "t" test at the .05 level of significance (two-tailed test).

Objectives 4 and 5 were criterion-referenced and it was determined whether or not the criterion was met, not met, or exceeded. Stratified random samples of project participants were employed to select subjects for testing and interview.

DATA PRODUCED BY EVALUATION DESIGN

Table I indicates the pre to post test performance of a sample of project third grade students on the Self-Observation Scale. The pre-post test interval was about 5 months.

Table I

Performance of Third Grade Project Students on the Self-Observation Scales (N = 52) Primary

Scale	Pre-Mean	Post-Mean	Gain	"t"	Probability
Self-Acceptance	47.73	46.56	-1.17	-.64	NS
Social Maturity	38.08	47.10	9.02	6.37	.01
School Affiliation	52.25	33.77	-18.48	-8.67	.01
Self-Security	44.73	54.69	9.96	4.80	.01

The third grade students showed statistically significant improvement in Social Maturity and Self-Security. The test publishers describe these scales as follows:

> Social II. Social Maturity.
>
> Children with high scores on this scale know how they are supposed to think and feel in a variety of social situations. They have learned the importance of such notions as "fair play, "sharing,"

"perserverance," "helpfulness," and "generosity." Children with low scores on this scale have not learned these notions and are likely to evidence behaviors that most adults would characterize as selfish, inconsiderate, or immature.

Scale IV. Self Security.

Children with high scores report a high level of emotional confidence or stability. They feel that they are in reasonable control of the factors that affect their lives and spend little time worrying over possible troubles. Children with low scores on this scale worry a great deal. They are concerned that something bad may happen and report feelings of nervousness.

The evaluators considered this evidence compelling enough to constitute achievement of Objective I c at the third grade level. The decline in the School Affiliation Scale is not unexpected in this type of testing. The performance of the sixth grade students on the Intermediate Level of the Self-Observation Scale was considerably less impressive.

Table II

Performance of Sixth Grade Project Students on the
Self-Observation Scales (N=78) Intermediate

Scale	Pre-Mean	Post-Mean	Gain	"t"	Probability
Self-Acceptance	49.59	49.03	- .56	-.75	NS
Self-Security	49.15	50.36	1.21	1.42	NS
Social Maturity	50.83	49.77	- 1.06	-1.23	NS
Social Confidence	53.05	52.92	- .13	- .16	NS
School Affiliation	44.68	45.82	1.14	1.03	NS
Teacher Affiliation	46.90	44.60	- 2.30	-2.05	.05
Peer Affiliation	50.64	51.25	.61	.83	NS
Achievement Motivation	49.72	50.82	1.10	1.60	NS

Table II shows that the only significant change in pre-post test performance was a decline in Teacher Affiliation.

The data available indicate that Objective I c was not obtained with the sixth grade group.

Scale C of the Career Development Inventory is considered an adequate measure of the attainment of Objectives Id, IVa, IVc, Vc, and Ve.

Table III indicates that the project did an outstanding job in achieving all these objectives at the ninth grade level. Since significant improvement was observed in Scales A and B, Objective Vf was achieved as well.

Table III

Performance of Ninth Grade Project Students on the Career Development Inventory (N=69)

Scale	Pre-Mean	Post-Mean	Gain	"t"	Probability
Planning Orientation (A)	94.68	107.32	12.64	6.03	.01
Resources for Exploration (B)	240.14	255.87	15.73	2.58	.05
Information and Decision Making (C)	12.12	13.51	1.39	2.57	.05
Total	346.85	376.70	29.85	3.89	.01

The performance of the twelfth grade, while good, was not sufficient to obtain Objectives Id, IVa, IVc, Vc, Ve, and Vf. Although the students gained on all scales, the Planning Orientation Scale was the only one to show statistically significant improvement. It should be noted that the "t" ratio obtained for the pre-post test of Scale C (Information and Decision Making) was 1.81. The "t" ratio required for significance (1.99) would have been obtained had the average pre-post gain been .68 rather than the .61 observed. It's unfortunate that a fine effort fell just short of the level required.

Table IV

Performance of Twelfth Grade Project Students on
the Career Development Inventory (N=107)

Scale	Pre-Mean	Post-Mean	Gain	"t"	Probability
Planning Orientation (A)	104.83	112.03	7.20	4.38	.01
Resources for Exploration (B)	253.00	257.47	4.47	.99	NS
Information and Decision Making (C)	18.47	19.08	.61	1.81	NS
Total	374.52	389.51	14.99	2.82	.01

Table V depicts the performance of third and sixth grade project students on the Career Education Questionnaire.

Table V

Performance of Third and Sixth Grade Project Students
on the Career Education Questionnaire

Grade	N	Pre-Mean	Post-Mean	Gain	"t"	Probability
3	110	16.07	17.39	1.32	5.15	.01
6	128	29.84	32.13	2.29	4.99	.01

The students at both grade levels made statistically significant improvement on this instrument. Since the Career Education Questionnaire measures objectives IVa, IVb, and IVc, they were, therefore, achieved at the third and sixth grade level.

Objective VIII required that 60 percent of the departing seniors indicate that they have been successful in locating a paid occupation, further education, or unpaid work that is consistent with their career decision.

Table VI

Response of Seniors Graduating From Project Schools to the Career Planning Questionnaire (N=36)

			Percent
1.	Check which one of the following applies to you:		
	A. I have been accepted by a college, trade school, institute, etc., for study after high school graduation.		55.5
	B. I have located a job where I will be working after high school graduation.		16.7
	C. I am still looking for a job where I can work after high school graduation.		27.8
	D. I will enter the Armed Forces after high school graduation.		0.0
	E. Other.		0.0
2.	Do you think your decision to further your education or enter the job market will help you achieve your career plans? (be a lawyer, teacher, bricklayer, secretary, etc.)	Yes No No Answer	80.6 8.3 11.1

Table VI shows that the project has more than met this objective with 80.6 percent of the responding seniors indicating compatibility between their current course of action and career plans. The fact that 27.8 percent are still looking for work is not alarming given the economic status of the region in the summer of 1975. Only 8.3 percent indicated their current educational or employment status was at variance with their career plans.

The last two objectives were included in the Scope of Work Statement but not in the USOE list of objectives.

Objective #6 (Scope of Work) required a 20 percent increase in the number and type of job preparation opportunities for students between the current year and the year preceding the project.

Table VII

Response of Counselors in Project High Schools to Career Status Questionnaire (N=4)

1. Did the students in your school have a greater opportunity to prepare for jobs in the 1974-75 school year than they did in 1972-73?

	Percent
Yes	100
No	0

2. To what extent has the number of students visiting and observing various occupations increased since the 1972-73 school year?

	Percent
A great deal (greater than 40% increase)	0.0
Somewhat (20-40% increase)	50.0
A little (1-20% increase)	50.0
No increase (0%--no increase)	0.0

3. To what extent has the number of students getting actual hands-on experience with the tools of a particular occupation increased since the 1972-73 school year?

	Percent
A great deal (greater than 40%)	75.0
Somewhat (20-40% increase)	25.0
A little (1-20% increase)	0.0
No increase (0%--no increase)	0.0

4. To what extent has the students' knowledge of the requirements, preparation, job conditions, etc., of various occupations increased since the 1972-73 school year?

	Percent
A great deal (greater than 40%)	25.0
Somewhat (20-40% increase)	50.0
A little (1-20% increase)	25.0
No increase (0%--no increase)	0.0

5. Do you think the school staff is more aware of and committed to Career Education now than it was in the 1972-73 school year?

	Percent
Yes	75.0
No	25.0

Table VII shows that the project was very successful in meeting this objective. 100 percent of the participating school counselors think their students have a greater opportunity to prepare for careers. All of them indicate at least 20 percent improvement in actual hands-on experience with the tools of a particular occupation.

The final objective (Scope of Work #6) deals with financial disbursements and was covered by the Project Director in subsequent reports. The total array of product objectives with the extent of their achievement is depicted in Table VIII. The symbol + indicates the objective was achieved; 0 shows partial achievement; and - means the objective has not been achieved. NA indicates the objective was not applicable at a particular grade level.

Table VIII

Achievement* of Product Objectives
by Project Students

Scope of Work #	USOE #	Objective	Grade Level 3	6	9	12
1	I c	Students will display positive attitudes toward themselves	+	-	NA	NA
1	I d	Students will recognize that social, economic, educational and cultural forces influence their development	NA	NA	+	-
2	IV a	Students will know the major duties and required abilities of different types of paid and unpaid work	+	+	+	-
2	IV b	Students will know differences in conditions and life styles associated with different types of paid and unpaid work	+	+	NA	NA
2	IV c	Students will know entry requirements for major types of paid and unpaid work	NA	+	+	-

Table VIII

(Continued)

Scope of Work #	USOE #	Objective	Grade Level			
			3	6	9	12
3	V c	Students will be able to identify, locate and utilize sources of information to solve career decision-making problems	NA	NA	+	-
3	V e	Students will know the steps to be taken and the factors to be considered in career planning	NA	NA	+	-
3	V f	Students will demonstrate active involvement in career decision-making	NA	NA	+	0
4	VIII	Students who are leaving the formal education system will be successful in being placed in a paid occupation, in further education or in unpaid work that is consistent with their career decision	NA	NA	NA	+
5	NA	The extent to which the number and type of job preparation opportunities have been expanded for young people in grades 10-14	NA	NA	+	+
6	NA	The financial resources from Section 142 (c) of Part D of P. L. 90-576	Project Director's Report			
*Percent of applicable objectives totally achieved			100%	75%	100%	25%

CONCLUSIONS AND RECOMMENDATIONS

The major conclusions substantiated by test data and evaluator observations during the second year of operation were:

1. The project achieved all of its product objectives at grade levels 3 and 9.

2. 75 percent of the product objectives were achieved at the 6th grade level and 25 percent at the 12th grade level.

3. An appreciable number of teachers were motivated, trained, and supported.

4. At least 38 teachers (700 students) have made Career Education a part of their educational philosophy and classroom behavior.

5. The community and parents have been involved in the Career Education effort.

6. The dissemination of project results, materials, and philosophy has been successful.

7. The Singer Vocational Evaluation System has been well received by the moderate number of students using it.

8. The ninth grade experiences program has significantly increased its student capacity through scheduling improvements. The students are generally favorable while the APVTS staff is somewhat reserved in its endorsement of the program.

9. Five Career Resource Centers have been established, often as a result of successful proposal writing by project staff.

10. Given the size of the staff and severe financial limitations, the project has been very successful.

11. The short interval between pre and post tests (5 months) and their dubious content validity reduced the probability of significant gains. The fact that significant gains were observed is very commendable.

While the objectives and measurement instruments were similar during the second and third years, the first year's evaluation activities were somewhat different. This is due primarily to two events:

(1) A change in third party evaluators with concomitant differences in orientation, philosophy, etc.

(2) The directive by USOE issued before the second year of operation which required all Part D projects to increase their communality of objectives and instruments.

The major instructional product objectives for the first year and the extent to which they have been achieved are as follows:

Objective	Achieved
1. At least 80 percent of elementary students can name and describe the occupation or job of their parents.	Partially
2. At least 80 percent of students accurately identify jobs which occur in their schools and communities.	Partially
3. Eighty percent of students indicate belief that all job levels are important.	Yes
4. Eighty percent of students indicate belief that job satisfaction is important.	No
5. Sixty-five percent of involved (treatment) 6th, 7th, 8th and 9th graders will score above the mean of the non-involved (control) group indicating greater career awareness.	No
6. Involved 6th, 7th, 8th and 9th grade students will exhibit more positive attitudinal perceptions than students in non-treatment (control) groups--indicating career education activities and student maturation. Sixty-five percent of involved students will score above the mean for non-involved students.	No
7. Ninety percent of 9th graders participating in apprenticeship programs will exhibit positive feelings toward experiences and information gained.	Yes

	Objective	Achieved
8.	Sixty-five percent of those high school students involved in special career-related learning experiences will score above mean of non-involved students.	No
9.	Students in grades nine through twelve participating in special career-related learning experiences will indicate greater diversity of source of information than those not participating.	No

Examination of the evaluation data over the three-year period indicates:

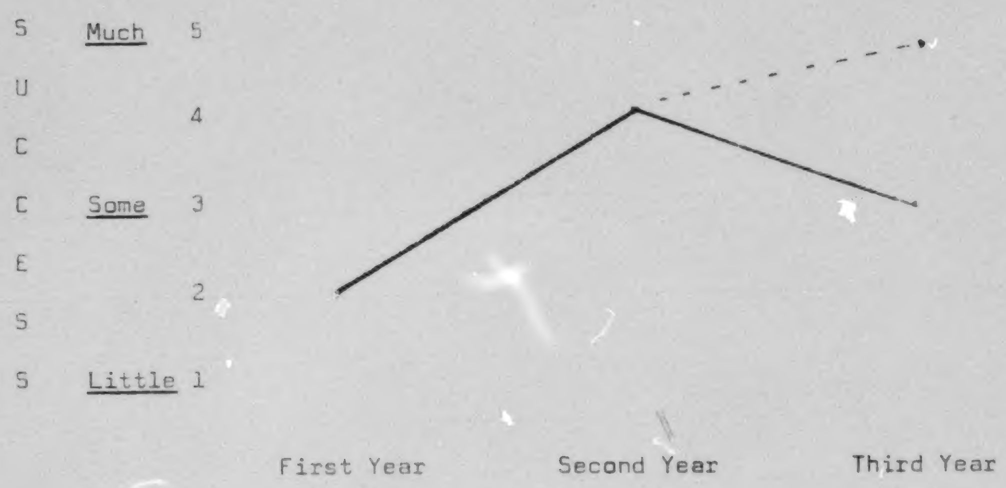
(1) First year energies were largely expended in getting the project organized, orienting project staff and teachers and identifying effective project activities. Few of the instructional objectives were achieved due to diffusion of effort, psychometric and design problems.

(2) Despite a serious cutback in personnel and funds, the project was very successful in achieving its instructional objectives during the second year of operation. The project has gotten over its initial problems of focus and organization and was well on its way to being an integral part of the curriculum of those schools in the APAVTS service area.

(3) Lack of support by several LEA's and a further reduction in funding level prevented the attainment of the success promised in the second year. The project had to restrict its activities to Holy Name School and Portage Area Schools. It was very successful in Holy Name School, but partially successful in Portage area. A graph of project success might look like the solid line that follows:

GRAPH 1

Three-Year Progress of Project



The dotted line indicates the degree of success which the project was capable of had funding, LEA cooperation and staff level been continued at a first year level.

Under the circumstances, the overall three-year progress of the project has been satisfactory.

CHAPTER VI

Conclusions, Implications and Recommendations

A. General

1. Process

As discussed and defined in Section A-1 of Chapter IV, this chapter will follow a format based on the five major process objectives for the project.

2. Product

As discussed and defined in Section A-2 of Chapter IV, product objectives are discussed in Chapter V, Third Party Evaluator's Report. In addition to the Third Party Evaluator's testing program, first year activities included a test development program by project staff for career education objectives for students and teachers in grades (1-12). Because of the reduced funding for the second and third project years and immediate cutbacks during the first year, the test development program was stopped before completion of first year activities. Results of the test development, as far as it went, are thoroughly documented in the first year project interim report. In summary, both teachers and students exhibited definite changes, positive or negative, on all test instruments, as a result of career education activities.

B. Elementary Grades - Career Awareness

1. Conclusions

- A "reality bound" program of Career Awareness has been developed and implemented that provides to elementary students and their teachers the opportunities to observe many of the actual materials and equipment utilized in the world of work, and

- An educational continuum, grades (1-5), has been developed which offers opportunities, information, and experiences to students at all grade levels designed to make students aware of the various occupations, relationships between occupations, and the important role that chosen careers play in their personal, social, and economic lives; and provides sufficient information commensurate with student level and ability for developing decision making skills.

2. Discussion

Most of the above mentioned opportunities occurred through the utilization of the curriculum infusion strategy of Career Education implementation. Possibilities exist for the entire community to become a teaching resource. A method of integrating classroom subject competencies with actual world of work activities and personal interest and abilities has been developed, field tested, and implemented. These opportunities can occur either in the form of field trips by the students to the AVTS, the comprehensive high school, or into the community in general, or in the form of visits to the classroom by resource persons from the community, including students or instructors from the AVTS or comprehensive high school. In support of these supplementary activities to curriculum content, a complete set of objectives, procedures, guidelines, and instructions for developing curriculum units in Career Education has been developed and disseminated to classroom teachers. Career Resource Centers have been established, primarily for teacher use, in support of Career Awareness activities.

Lines of communication and procedures have been identified and developed among the elementary, middle and high schools, the AVTS, and the community so that "field trip" type activities can be continued within the existing school organizational structure without the continuing assistance of project personnel. Through a combination of teacher workshops, in-service activities and project staff assistance, teachers were oriented to the Career Education concept.

A curriculum packet containing teacher created curriculum units was compiled and disseminated to all participating instructors. The instructors trained by project personnel can now continue "curriculum infusion" type strategy with little or no continued support by Career Education project personnel.

3. Recommendations

- That curriculum development with a shift in emphasis to Career Education should be systemamatically continued with small manageable groups of teachers in the form of workshops or released time meetings,

- That teachers trained in Curriculum Infusion be encouraged by school administrators to continue Career Education activities,

- That project trained teachers be encouraged to become Career Education team leaders responsible for training several non-participating teachers each in the methods and procedures of Career Education,

- That appropriate incentives be provided to Career Education team leaders and other participants to encourage further development and implementation of Career Education activities,

- That the appropriate resources should be provided and/or made available to enhance the infusion of Career Education curriculum units into classroom instruction. These resources include CRC's and other learning stations within the school, as well as those available in or from the community, and

- That whenever out of classroom activities are utilized, they should be warranted by curriculum content, be well planned, and include both preparation and follow up activities.

C. Middle School Grades - Career Exploration

1. Conclusions

- A "reality bound" Career Exploration program to allow junior high or middle school students to obtain actual "hands-on" experiences in the exploratory sense in the various occupational clusters, and to make available to students sufficient information and experiences to allow them to choose a general direction in which they wish to pursue an occupation has been developed and implemented,and

- The Career Exploration segment of the total educational continuum, K-12, offered opportunities, information, and experiences to students in all grade levels so that they may be made more aware of the various occupations, relationships between occupation, and the important role that chosen careers play in their personal, social, and economic lives; and provided all students with sufficient information commensurate with their level and ability for developing and practicing decision making skills.

2. Discussion

Opportunities for Career Exploration occur in several forms, as follows:

- Curriculum Infusion activities, as described for the elementary grades component,

- Field trips to the AVTS, the comprehensive high school or into the community in general,
- Visits to the classroom by resource persons from the community, including students from the AVTS or comprehensive high school,
- Career Resource Centers (CRC), which were developed to be more student oriented than the elementary CRC,
- The Singer Vocational Evaluation Carrels, and
- Club activities.

Through a combination of teachers workshops, inservice activities, and project staff assistance, teachers were oriented to the Career Education concept.

In addition, a complete set of objectives, procedures, guidelines, and instructions have been developed and disseminated to classroom teachers for:

- developing curriculum units in Career Education,
- establishing lines of communication among the elementary school, middle school, high school, the AVTS, and the community, and
- continuing field trip type activities within existing school organizational structure without the assistance of project personnel.

It is felt that the Singer Carrel program does have promise and can be developed into a broad, meaningful experience of value to all middle school students. However, the program implementation led to identification of some modifications necessary to meet project objectives. These were:

- The directions were not always clear, necessitating supplemental direction,
- Quality of equipment provided was inadequate for level of usage with this age child, requiring extensive replacement and maintenance,
- Some of the products resulting from carrel tasks were not viewed as functional by these children resulting in redesign of these tasks, e.g., the "bag" made in the needle trades station was too

small and poorly designed for student usage, therefore a larger bag was designed which provided opportunities for re-definition of tasks resulting in a book bag actually used by children, and

- The length of time required for carrel completion was longer than most existing school schedules allow, resulting in special schedule arrangements (Appendix IV-5).

3. Recommendations

- That curriculum development with a shift in emphasis to Career Education should be systematically continued with small manageable groups of teachers in the form of workshops or released time meetings,
- That the appropriate resources should be provided and/or made available both to the teacher and the individual student, to enhance the infusion of Career Education Curriculum Units into classroom instruction. These resources include CRC's and other learning stations within the school as well as those available in or from the community,
- That whenever out of classroom activities are utilized, they should be warranted by curriculum content, be well planned, be keyed to the individual student's interest, aptitude, and abilities, and include both preparation and follow up activities,
- That the Singer Carrel Component of the Career Education program be made an operative part of the regular school program,
- That learning stations with community input and orientation should be developed, and
- That related guidance functions should be identified and cooperative efforts between Singer Carrel staff and guidance personnel be cultivated.

D. Secondary School Grades - Career Preparation

1. Conclusions

- A "reality bound" Career Preparation program to allow 9th grade students to obtain actual "hands-on" experience in the exploratory sense in the various occupational clusters and to obtain sufficient career information to allow students to choose a general direction in which they wish to pursue an occupation has been developed to the level of becoming an operational part of the existing school activities,

- A step toward helping students more efficiently utilize the placement services has been taken. Much career information and career experience in addition to regular school programs have been provided to 9th grade students,

- Segments of several Career Preparation programs were explored and the goal of integrating both home school and AVTS curricula in grades (9-12) to provide occupational preparation for a variety of occupational areas commensurate with the student's interest and ability was only partially met, and

- Another step has been accomplished in the development of a total educational continuum, K-12, offering opportunities, information, and experiences to students so they may be made aware of the various occupations, relationships between occupations, and the important role that chosen careers play in their personal, social, and economic lives.

2. Discussion

As is the case nationally, the secondary level component of Career Education was the most difficult to implement and had the least number of successful activities. This problem was identified during the first project year; however, with the approximate 46% reduction in funding for the second and third project years, there were limited resources to address the problem. The recommendations made by the USOE Project Progress Monitoring Teams and the Third Party Evaluators that project activities in the second and third years be directed toward fewer activities in more depth in areas of high potential for success suggested to project staff that areas other than secondary level activities be pursued. In fact, no secondary level activities were conducted during year three under direct control of project personnel.

The Career Experience program is one that has been shown to be of vital importance to students at the 9th grade level and can be easily expanded to grades 8, 10, and 11 because this is the time when they are called upon to decide on a "track" or curriculum to follow, usually for the remainder of their high school careers. We feel that since this is a decision that may well affect the remainder of their working life and related life style, much assistance should be provided to ensure that students will have the opportunity to make a realistic choice. It is also worthy of note that the Career Experience program may be participated in by cooperating school districts at nominal cost.

3. Recommendations

- That the Career Experience program become an operative part of each participating school's guidance and instructional program throughout the school year as a true apprenticeship program and not merely one more orientation promotion,
- That a community component of the Career Experience be created and implemented by participating school personnel,
- That appropriate pre and post activities be cultivated to make this experience a meaningful one in terms of orientation and understanding of the world of work, truely a career exploratory activity,
- That curriculum development with a shift in emphasis to Career Education should be encouraged and systematically pursued with small groups of teachers in the form of workshops or released time meetings, and
- That the appropriate resource should be provided and/or made available both to the teacher and to the individual student, to enhance the infusion of Career Education Curriculum Units into classroom instruction. These resources include CRC's and other learning stations within the school, as well as those available in or from the community.

E. Post Secondary and Placement

1. Conclusions

- Graduate and undergraduate students in Education have been successfully involved in Career Education activities involving both public and private elementary and middle school grade levels,
- A successful beginning of a cooperative effort with the military to relate civilian and military

occupations was initiated,

- A placement counselor and two cooperative education instructors hired by the AVTS were oriented to the Career Education concept, and
- No significant Post Secondary or Placement activities in and of themselves have been successfully concluded during the course of this project.

2. Discussion

As discussed above under the secondary school component very little activity under the direct control of project staff was conducted in the post secondary and placement component during the second and third project years because of reduced funding.

Cooperative education and placement are usually two operational functions of an AVTS. The Career Education project staff had some input into these two areas by working with the professional personnel involved. The floating community college concept described in the original project proposal has yet to become a reality as of the project closing date.

3. Recommendations

- That the involvement of graduate and undergraduate education majors in Career Education in the public and private schools be continued as a means of infusing new ideas into the educational system,
- That a systematic set of plans and procedures should be developed for incorporating Career Education into post secondary education,
- That school district personnel should continue to work in the areas of placement and cooperative education for all students, and
- That development of the very promising program with military be continued.

F. Total Career Education Continuum (K-12)

1. Conclusions

- A continuum for classroom activities in Career Education was designed and implemented to varying degrees of success, as described in the foregoing section,

- The elementary and middle school components were very successful,
- The community has been successfully involved in Career Education activities primarily through parent volunteers and resource people,
- The approach of guidance personnel developing the Career Education Continuum is a valid concept,
- Dissemination activities were successfully carried out at the national, state, and local level, both through large conferences and through district by district personal contact, and
- Parents were successfully involved in Career Education activities at the elementary and middle school grade level.

2. Discussion

Career Education activities cannot be isolated in the schools; total community involvement is needed. This philosophy is perhaps best presented in the minority report submitted by this project's director and Dr. Lewis M. Abernathy, at the National Career Education Conference, Dallas, Texas, 27-30 January 1975. The report is included as Appendix VI-1 of the second year interim report.

3. Recommendations

- That school districts considering the implementation of Career Education activities should employ the appropriate guidance and counseling personnel,
- That community involvement, and most particularly parents, be encouraged in Career Education activities,
- That dissemination activities be continued as a "two way street", i.e. internally developed Career Education curriculum material be disseminated within the school districts and materials obtained from outside sources, be disseminated among the participating districts,
- That a contact person be designated in all participating schools: to provide or obtain resources; provide leadership in staff development; and act as a liaison between

the school, community, resource staff and administration,

. That every attempt should be made to strengthen the secondary component in participating schools especially through the infusion of Career Education concepts into the on-going curriculum. (Infusion strategies discussed in Chapter IV.) The above infusion could be enhanced by a level of administrative support similiar to that currently evidenced at some elementary and middle schools, and

. That a Career Education Advisory Committee (or committees), needs to be established. The structure of this committee (or committees) can be vertical within a particular school district. The committee (or committees) should include a parent representative, business community representative, school administrative representative, teacher representative, reacher education representative and student representative.

G. External Analysis of Admiral Peary AVTS Career Education Activities, 1971-1976

This section was prepared by the Third Party Evaluators and is presented as a separate section beginning on the next page.

An additional external analysis is presented in Appendix VI-1, "U.S.O.E. Three Year Project Progress Monitoring Team Report".

G. External Analysis of Admiral Peary AVTS Career Education Activities, 1971-1976

A THIRD PARTY VIEW OF PROJECT ACTIVITIES

1973 - 1976

ERANDA has been involved with the APAVTS Career Education Projects since 1972. As third party evaluators, we have been compelled to restrict our comments to those supported by hard data and relevant to the evaluation design. The Project Director has given us this space in his final report to express our views in a more subjective or impressionistic manner. Our overall judgement is that the Project has resulted in significant improvements in the Career Education activities of those school districts in the APAVTS service area. These improvements were badly needed since the service area is characterized by out migration, unemployment and underemployment.

The major positive and lasting outcomes are as follows:

(1) Curriculum Infusion

Through materials development, teacher workshops and one-to-one teacher support, the Project has produced dozens of teachers who are continuing to infuse Career Education into their curriculum. This is a very commendable legacy.

(2) Curriculum Resource Centers (CRC)

Through the efforts of project staff, CRC's have been established in most LEA's. These CRC's are viable and will continue to support the Career Education activities.

(3) Increased Career Awareness

Interviews with students and teachers indicates that both groups have increased their awareness of self-appraisal, job analysis, problem solving, environmental aspects, etc. Large numbers of students and teachers, as well as parents, are more Career Education conscious as a result of Project activities.

(4) Counseling/Career Education Articulation

Project staff have been very successful in helping district counselors inculcate Career Education into the individual and group counseling process.

(5) Development of Hands-on Experiential Orientation

Since the start of the Project, the schools have accepted the concept that students should have real or simulated experiences with occupational environments.

(6) Continuation of Task Sheets

The APAVTS has decided to continue the use and development of task sheets initiated under the Part C Project.

(7) State School Spinoff

The Pennsylvania State Schools for the Handicapped at Cresson and Ebensburg have adopted many of the Project's outputs in developing a special Career Education project for their population.

(8) Movement Toward Behavioral Objectives and Accountability

Those school districts associated with the Project have been impressed with its emphasis on behavioral objectives, measurement and accountability. The schools are changing their orientation to include these concepts.

(9) Individualization of Instruction

Project activities have stressed the importance of the individual and the need to design the program accordingly. Participating LEA's have gradually increased the commitment to individualized instruction.

(10) Increased Parent and Community Involvement

The Project has always involved parents and community members in its activities. The Career Education Fair at Holy Name School (third year) and the parent volunteers at Central Cambria Middle School (second year) are excellent examples. This philosophy of involvement is new to the area and is a very important lasting benefit of the Project.

This list is not exhaustive, but does serve to illustrate the lasting changes which the Project has been able to make in its service area. The Project staff are to be commended for the improvements they were able to effect despite severe difficulty. The major problems they encountered were:

(1) A Difficult First Year of Operation

Any Project has difficulty during its first year refining its purpose, techniques, structure, etc. This situation is compounded when dealing with a consortium as the APAVTS Project was. There were communication problems between the staff, Project Director, APAVTS administration and the Superintendents of the participating LEA's. This confusion led to some improper activities sequencing (field trips before orientation) which had to be rectified.

(2) Severe Reduction in Staff and Money

At the end of the first year, the Project had largely rectified its initial problems. Things were once again disrupted when support cuts of almost two-thirds were made. This again caused an agonizing reappraisal and an attempt to allocate limited resources over all LEA's. This proved impossible and the Project was forced to concentrate in Portage Area and Holy Name Schools. The displeasure of the non-involved schools was obvious.

(3) Turnover in LEA Superintendents

Of the six superintendents (5 public, 1 private) involved in the original proposal, only two were still in office at the Project's termination. This caused significant problems in commitment and Project coherence. Significant resources were expended trying to keep new superintendents aware of Project activities and philosophy.

(4) The Use of APAVTS as Sponsor

The use of APAVTS as the Project sponsor caused several difficulties. The administrative structure of APAVTS, as that of most consortia, is multi-layered and cumbersome. Decision-making power is diffuse and response time is generally slow. Teachers and administrators in the participating schools often viewed the Project as a Vo-Tech activity with a consequent confusion of Career Education and Vocational Education. In addition, many of these teachers view the Vo-Tech school as academically inferior and any project emanating from it as suspect. This problem was compounded by their perception that the Vo-Tech School was attracting students whose loss might cause lay offs in their own districts.

(5) Second-Year Difficulties with one LEA

The Project logically decided that severe funding cuts required a concentration of their resources during the second year. The ninth grade in a single LEA was selected and plans were made to develop a model Career Education program at this site. After several months of planning and disagreement, it became obvious that the Project Director and the LEA Superintendent were irreconcilably different in their interpretation of the Project's grant conditions. The end result was several months of lost effort since the Project was forced to relocate in a different district.

(6) Last Year Project Syndrome

The last year of any Project usually produces some indication of participant withdrawal. They are reluctant to have a psychological or temporal commitment to a Project which will disappear. This phenomena is more acute in a consortium and most acute in a consortium which has little or no chance of being absorbed by a larger entity.

(7) The Outside Influence Problem

The school districts making up the consortium are traditional, conservative and dominated by persons born and raised in the area. Outside influences such as this Project are viewed with suspicion and hesitance unless local people are in key roles. This reluctance was never fully dissipated since the key Project staff were imported into the area.

Despite these difficulties, the Project staff accomplished a great deal. The effect of the Project on the LEA's is real and lasting. The credit for accomplishing so much with so little despite multiple impediments goes directly to the Project staff. They persevered in the face of great difficulties and stayed with the task until the last day. There was no general staff exodus during the third year which often occurs with terminal projects. They were few and they did much with little. Career Education in the APAVTS service area is better for their efforts.

APPENDIX II-1

THIRD PARTY EVALUATION DESIGN FOR EACH OF THREE YEARS OF PROJECT

CHART I

Final Evaluation Design for Career Education Project

(Part D Exemplary)

Admiral Peary Area Vocational-Technical School

Ebensburg, Pennsylvania

Education Services, Inc.
Waco, Texas

ELEMENTARY STUDENTS

VARIABLE	OBJECTIVE	MEASUREMENT AND/OR OBSERVATION	DATA COLLECTION SCHEDULE
Awareness of family jobs	1. At least 80 percent of elementary students can name and describe the occupation or job of their parents	ESI Career Awareness Questionnaire (248-03) Personal interviews and staff observations	Pre-test Sept., 1973 Interview March 1974 Post-test May, 1974
Awareness of community jobs	2. At least 80 percent of students accurately identify jobs which occur in their schools and communities	ESI Career Awareness Questionnaire (248-03)	Pre-test Sept., 1973 Post-test May, 1974
Perceptions of importance and satisfaction with jobs.	3. 80 percent of students indicate belief that all job levels are important 80 percent of students indicate belief that job satisfaction is important.	ESI Elementary Career Awareness Questionnaire (248-03)	Pre-test Sept., 1973 Post-test May, 1974

ELEMENTARY-TEACHER OBJECTIVES

VARIABLE	OBJECTIVE	MEASUREMENT AND/OR OBSERVATION	DATA COLLECTION SCHEDULE
Level of teacher awareness of the Career Education program	1. a. 85 percent of teachers informed about experiences and materials for Career Education	a. ESI Teacher Form (248-01)	Pre test August-Sept., 1973 Workshop Post test August, 1973
	b. 85 percent of teachers understanding basic Career Education goals	b. ESI Teacher Form (248-01)	Post test May, 1974
	c. 85 percent of teachers were able to describe student objectives	c. ESI Teacher Form (248-01A)	
	d. 85 percent of teachers able to give example relating student objectives to a unit study for their classroom	d. ESI Teacher Form (248-01A)	
Level of acceptance of perceived importance of Career Education program	2. a. 35 percent of teachers giving an "important" or "very important" rating to the basic Career Education goals	a. ESI Teacher Form (248-01)	Pre test August-Sept., 1973 Workshop Post test August, 1973 Post test May, 1974
	b. Obtain measurements of teachers feelings about project progress and related activities	b-1 Career Activity Checklist (RCU #13)	January, 1974
		b-2 ESI 248-010 Faculty Attitudes	January, 1974

ELEMENTARY TEACHER OBJECTIVES Continued

VARIABLE	OBJECTIVE	MEASUREMENT AND/OR OBSERVATION	DATA COLLECTION SCHEDULE
Teacher perceptions about student improvements via Career Education	3. 80 percent of teachers indicate that their students can significantly increase: a. their motivation in school b. their achievement in school as a result of the Career Education program	Questions J and K ESI 248-01 (revised)	Post test May, 1974
Level of teacher satisfaction with their own work	4. Teacher satisfaction with their own work will significantly increase during the school year	Use of Purdue teacher Questionnaire concerning morale Factor 2 Factor 6	Pre test August, 1973 Post test May, 1974

MIDDLE SCHOOL STUDENTS

VARIABLE	OBJECTIVE	MEASUREMENT AND/OR OBSERVATION	DATA COLLECTION SCHEDULE
General career awareness	1. 65 percent of involved 6th, 7th, 8th and 9th grade students will score above the mean of the non-involved group indicating greater career awareness	CMI Factor 2-Compentency Test	Experimental and control groups April, 1974
Student self-understanding	2. Involved 6th, 7th, 8th, And 9th graders will exhibit more positive attitudinal perceptions than students in non-treatment groups indicating Career Education activities aid in student maturation. 65 percent of involved students will score above the mean for non-involved students	CMI Attitude Scale Factors 1 and 3 - of the Competency Test	Experimental and control groups April, 1974
Decision-making process of students	3. a. 90 percent of 9th graders participating in apprenticeship programs will exhibit positive feelings toward experiences and information gained	Student Apprenticeship Checklist (RCU #05)	November, 1973 through May, 1974

MIDDLE SCHOOL AND SENIOR HIGH TEACHER OBJECTIVES

VARIABLE	OBJECTIVE	MEASUREMENT AND/OR OBSERVATION	DATA COLLECTION SCHEDULE
Level of teacher awareness of the Career Education program	1. a. 85 percent of teachers informed about experiences and materials for Career Education	ESI Teacher Form (248-01)	Pre Test August-Sept., 1973 Workshop Post Test August, 1973
	b. 35 percent of teachers understanding basic Career Education goals	ESI Teacher Form (248-01)	Post Test May, 1974
Level of acceptance of perceived importance of Career Education program	2. a. 35 percent of teachers giving an "important" or "very important" rating to the basic Career Education goals	ESI Teacher Form (248-01)	Pre Test August-Sept., 1973 Workshop Post Test August, 1973
	b. Obtain measurements of teachers feelings about project progress and related activities	Career Activity checklist (RCU) ESI (248-010) (Faculty attitudes)	January, 1974 April - High School April, May - Middle School
Level of teacher satisfaction with their own work	3. Teacher satisfaction with their own work will significantly increase during school year	Use of Purdue teacher Opinionnaire concerning morale Factors 2 and 6	Pre test August, 1973 Post test May, 1974

SENIOR HIGH STUDENTS

VARIABLE	OBJECTIVE	MEASUREMENT AND/OR OBSERVATION	DATA COLLECTION SCHEDULE
General career awareness experience and attitude	1. 65 percent of those senior high students involved in special career-related learning experiences will score above mean of non-involved students	CMI - all scales	Experimental and contr groups, April, 1974
Information and experience for self understanding and decision-making in terms of careers	2. Students in grades 9 through 12 participating in special career related learning experiences will indicate greater diversity of source of information than those not participating	CMI Factors 4 and 5 of the competency Test CDQ (H. S. edition) Total score	Experimental and contr groups, April, 1974

COMMUNITY OBJECTIVES

VARIABLE	OBJECTIVE	MEASUREMENT AND/OR OBSERVATION	DATA COLLECTION SCHEDULE
Level of parental involvement in Career Education program	1. At least 35 percent of parents of elementary students will participate in the Career Education program by at least one of the following: a. classroom presentation about job b. assisting with field trip c. classroom visit d. other	Teacher Project Report Form	Throughout 1973-74 school year
Parental awareness of Career Education concepts	2. More than 35 percent of randomly selected parents of school age children display positive attitudes toward Career Education	ESI 248-01	December, 1973
Business, community awareness of Career Education concepts	3. More than 35 percent of businessmen will display positive attitudes toward Career Education	ESI 248-01	December, 1973

EXHIBIT II

EVALUATION DESIGN
FOR CAREER EDUCATION PROJECT

GRANT #OEG-0-73-5272
FUNDED THROUGH PART D
OF PUBLIC LAW 90-576

Project V361012

Submitted to: Dr. Edward Lareau
Project Director
Ebensburg, Pennsylvania

Submitted by: Martin J. Higgins
Ernest L. Peters

15 January 1975

EDUCATIONAL RESEARCH AND DEVELOPMENT ASSOCIATES
28 West Market Street
West Chester, Pennsylvania 19380

Comments

The following evaluation design was developed in accordance with the Scope of Work Statement released by the Project Director and the evaluation guidelines formulated by Development Associates, Inc. for the U. S. Office of Education. The major problems encountered were:

(1) Severe reductions in project funding level with consequent restrictio of evaluation activities. Emphasis has been placed on student outcomes or products. Very few resources are available to evaluate the educational process (treatment) or project management.

(2) Differences between the objectives previously identified by project personnel and those contained in the Scope of Work Statement (six) and the evaluation guidelines formulated by Development Associates, Inc. (thirty-three). Considerable effort was expended cross referencing the various sets of objectives and determining the relative emphasis placed on them by the project.

(3) The evaluation guidelines and Scope of Work Statement were released too late to be incorporated in a September to May design. This has forced projects into evaluating a segment of the year's activity.

I. Evaluation Questions

The Evaluation questions are naturally a function of the project's objectives. The objectives in terms of student outcomes are as follows:

Scope of Work #	USOE#	Objective	Grade Level
1	I c	Students will display positive attitudes toward themselves	3, 6
1	I d	Students will recognize that social, economic, educational and cultural forces influence their development	9, 12

Scope of Work #	USOE#	Objective	Grade Level
2	IV a	Students will know the major duties and required abilities of different types of paid and unpaid work	3, 6, 9, 12
2	IV b	Students will know differences in conditions and life styles associated with different types of paid and unpaid work	3, 6
2	IV c	Students will know entry requirements for major types of paid and uppaid work	6, 9, 12
3	V c	Students will be able to identify, locate and utilize sources of information to solve career decision-making problems	9, 12
3	V e	Students will know the steps to be taken and the factors to be considered in career planning	9, 12
3	V f	Students will demonstrate active involvement in career decision-making	9, 12
4	VIII	Students who are leaving the formal education system will be successful in being placed in a paid occupation, in further education or in unpaid work that is consistent with their career decision	12+
5	NA	The extent to which the number and type of job preparation opportunities have been expanded for young people in grades 10 through 14	10 to 14
6	NA	The financial resources from Section 142 (c) of Part D of P. L. 90-576 that were expended at each of the grade level breakouts	K to 14

The evaluation questions are specific to each objective and with the exception of objectives 4-6 are stated in pre-post, non-control group terms. For example, the evaluation question appropriate to Objective 1 is:

(1) Do students participating in the Career Education program show statistically significant improvement in positive attitudes toward themselves as measured by the Self-Observation Scales at grades 3 and 6?

The objectives and evaluation questions are primarily concerned with student outcomes. The only evaluation activity directed toward Treatment (Process) or Management will be observations, questionnaires, teacher logs, etc., to determine if educational activities previously mentioned were actually conducted.

II. Evaluation Design

The evaluation design to be employed with objectives 1 through 3 is a pre-test, post-test non-control group design. Campbell and Stanley[1] refer to it as pre-experimental design #2. It provides marginal protection against the threats to internal and external validity. The major reasons for selecting this design are as follows:

(1) Career education activities exist in all schools to which the project has access. A non-contaminated control group could not be located within the districts.

(2) Lack of lead time prevented the staff from overcoming a natural reluctance to serve as a control group on the part of non-district classes.

(3) A reduced funding level required cuts in the program's educational activities. Even if a control group could be located (unlikely) it would be difficult to justify diverting the additional $1,000 required for testing from program activities to evaluation.

It would be desirable for USOE to fund a study to determine normal growth rates for various pre-post test intervals on the instruments approved by a contrast group of similar socio-economic background children not involved in Career Education.

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[1] Campbell, Donald T. and Stanley, Julian C., Experimental and Quasi-Experimental Designs For Research on Teaching

Objectives 4 and 5 will be criterion referenced. The criteria for Objective 4 is that 60 percent of the responding students (1974 graduates) indicate that they have been successful in locating a paid occupation, further education or unpaid work consistent with their career decision. The criteria for Objective 5 is a 20 percent increase in the number and type of job preparation opportunities for students between the current year and the year preceeding the project.

Objective 6 consists of allocating all expenses to the grade categories provided.

III. Data Sources

For Objectives 1, 2, 3 and 4 direct data sources will be employed. In Objectives 1, 2 and 3 current student test data will be utilized. For Objective 4 current questionnaire responses of a random sample of recent graduates (1974) and dropouts will be gathered. Objective 5 will have questionnaire responses of counselors and Coop-directors as the data source. The source of data for Objective 6 will be the financial records of the Project Director.

IV. Data Collection Instruments

The data collection instruments associated with the various objectives are as follows:

Objective Scope of Work #	USOE #	Instrument	Grade Level
1	I c	Self-Observation Scales	3, 6
1	I d	Career Development Inventory-C	9, 12
2	IV a	Career Education Questionnaire Career Development Inventory - C	3, 6 9, 12
2	IV b	Career Education Questionnaire	3, 6
2	IV c	Career Education Questionnaire Career Development Inventory - C	6 9, 12
3	V c	Career Development Inventory - C	9, 12
3	V e	Career Development Inventory - C	9, 12
3	V f	Career Development Inventory - A & B	9, 12
4	VIII	Questionnaire to 1974 Graduates and Dropouts	12+
5	NA	Questionnaire to Counselors and Co-op Directors	10 to 14
6	NA	Examination of Project's Financial Records	K to 14

All standardized instruments have been approved for these objectives by the USOE panel.

V. Sampling Plan

Stratified random sampling procedures will be employed. The approximate distribution of participating students and students to be tested by elementary school is as follows:

	Grade 3		Grade 6	
School	Participating Students	Students to be Tested	Participating Students	Students to be Tested
Holy Name	30	15	30	15
Portage	120	40	120	40
Penn Cambria	180	45	150	50
Central Cambria	30	15	90	40
Totals	360	115	390	145
% Sample		31.9%		37.2%

At the 9th grade level a random sample of 20 participating students will be selected from each of the following Junior High Schools:

School	N
Bishop Carrol	20
Black Lick	20
Cambria Heights	20
Penn Cambria	20
Central Cambria	20
Portage	20
Total	120

A sample of 1974 graduates and dropouts of similar size and distribution will be employed for the questionnaire response required for Objective #4 (USOE # VIII).

Participating seniors will be randomly sampled as follows:

Career Education Activity	Sample Size	Location
Business Students exposed to TIS*	50	Penn Cambria (30) Bishop Carrol (20)
Career Resource Center	50	Portage
Coop and TIS	40	Admiral Peary
Health Field experience and TIS	30	Admiral Peary
TIS only	30	Admiral Peary
Total	200	

*Task Instruction Sheet

VI. Data Analysis Plan

For objectives 1, 2 and 3 a pre-test, post-test non-control group design will be employed. The data will be analyzed by grade level using the correlated "t" test at the .05 level (two-tailed). The data will also be analyzed by strata (school or district). Objectives 4 and 5 are criteria referenced and will be handled in that manner.

VII. Data Collection Plan

The data collection plan is depicted in Table X-B. ERANDA will order, distribute and score all tests and questionnaires. The tests will be administered by a trained research assistant.

IX. Reporting Plan

The pre-test data will be processed and reported to the Project Director by February 15, 1975. The final report will be submitted to the Project Director by June 15, 1975. Twenty-five (25) copies of the final report will be provided for whatever distribution the Project Director sees fit. ERANDA will make one presentation of the final report to any local individual or group at the request of the Project Director. Additional presentations will be at the rate of $100 per man day plus expenses. In addition to the product evaluation, ERANDA will make periodic visits to confirm the existence of the stipulated process. Their will be an exit interview after each visitation to inform the Project Director of any discrepancy while there is time for remedial action.

EVALUATION DESIGN WORKSHEET

Student Outcome Area	Outcome Question	Related Evaluation Questions	Design	Data Sources	Instrumentation	Sampling	Data Analyses
Increased self awareness	Do students display more positive attitude toward themselves?	Evaluation is student outcome oriented. Existence of treatment or process aspect is validated via observations, logs, etc.	Pre-test Post-test Non-Control Group Design	Participating students	Self-Observation Scales	Stratified Random Sample Grade 3 = 115 Grade 6 = 145	Means, standard deviations correlated "t" test, .05 level two tailed
Increased self awareness	Have students increased their recognition that social, economic, educational and cultural forces influence their development?	Same as above	Same as above	Same as above	Career Development Inventory	Stratified Random Sample Grade 9 = 120 Grade 12 = 200	Same as above
Increased awareness of and knowledge about work	Have students increased their knowledge regarding the major duties and required abilities of different types of paid and unpaid work?	Same as above	Same as above	Same as above	Career Education Questionnaire Grades 3, 6 Career Development Questionnaire Scale C Grades 9, 12	Stratified Random Sample Grade 3 = 115 Grade 6 = 145 Grade 9 = 120 Grade 12 = 200	Same as above
Increased awareness of and knowledge about work	Have students increased their knowledge of differences in work conditions and life styles associated with different types of paid and unpaid work?	Same as above	Same as above	Same as above	Career Education Questionnaire	Stratified Random Sample Grade 3 = 115 Grade 6 = 145	Same as above
Increased awareness of and knowledge about work	Have students increased their knowledge of entry requirements for major types of paid and unpaid work?	Evaluation is student outcome oriented. Existence of treatment or process aspect is validated via observations, logs, etc.	Pre-test Post-test Non-Control Group Design	Participating students	Career Education Questionnaire Grade 6 Career Development Inventory Scale C Grades 9, 12	Stratified Random Sample Grade 6 = 145 Grade 9 = 120 Grade 12 = 200	Means, standard deviations, correlated "t" test .05 level two tailed
Increased career decision-making Skills	Have students increased their ability to (a) identify, (b) locate, and (c) utilize sources of information to solve career decision-making problems?	Same as above	Same as above	Same as above	Career Development Inventory Scale C	Stratified Random Sample Grade 9 = 120 Grade 12 = 200	Same as above
Increased career decision-making Skills	Have students increased their knowledge of the steps to be taken and the factors to be considered in career planning?	Same as above	Same as above	Same as above	Career Development Inventory Scale C	Stratified Random Sample Grade 9 = 120 Grade 12 = 200	Same as above
Increased career decision-making Skills	Have students increased their active involvement in career decision making?	Same as above	Same as above	Same as above	Career Development Inventory Scales A & B	Stratified Random Sample Grade 9 = 120 Grade 12 = 200	Same as above

EVALUATION DESIGN WORKSHEET

E.#	Student Outcome Area	Outcome Question	Related Evaluation Questions	Design	Data Sources	Instrumentation	Sampling	Data Analyses
II	Placement	A. How many students have been placed or are engaged in further education and how does this compare with prior years? B. How many students have been placed in a paid occupation, and how does this compare with prior years? C. Of those placed in (a) further education, and (b) employment, how many consider the placement to be consistent with their career plans? D. Of those not placed in further education or in a paid occupation, how many are engaged in (a) unpaid work consistent with their career plans, and how does this compare with prior years?	Base line data as to prior years is not available. We have therefore criterion referenced this objective to be that 75% of the responding students indicate: a. they are placed in further education or employment b. they consider this placement to be consistent with their career plans	Criterion Referenced	1974 graduates and dropouts	Questionnaire	Stratified Random Sample N = 120	Percentages for each response

EVALUATION DESIGN
FOR CAREER EDUCATION PROJECT

GRANT #OEG-0-73-5272

FUNDED THROUGH PART D

OF PUBLIC LAW 90-576

Project V361012

Submitted to: Dr. Edward Lareau
Project Director
Ebensburg, Pennsylvania

Submitted by: Martin J. Higgins
Ernest L. Peters

15 September 1975

EDUCATIONAL RESEARCH AND DEVELOPMENT ASSOCIATES
28 West Market Street
West Chester, Pennsylvania 19380

Comments

The following evaluation design was developed in accordance with the grant application released by the Project Director and the evaluation guidelines formulated by the U. S. Office of Education.[1] The major problems encountered were:

(1) Severe reductions in project funding level with consequent restriction of evaluation activities. Emphasis has been placed on student outcomes or products. Very few resources are available to evaluate the educational process (treatment) or project management.

(2) The need to develop an evaluation design rigid enough to detect treatment effect yet flexible enough to accommodate a dynamic, changing project.

1. Evaluation Questions

The Evaluation questions are naturally a function of the project's objectives. The objectives in terms of student outcomes are as follows:

USOE#	Objective	Grade Level
1	Students will display positive attitudes toward themselves	6, 8, 9
2	Students will recognize that social, economic, educational and cultural forces influence their development	8, 9, 12
3	Students will know the major duties and required abilities of different types of paid and unpaid work	6, 8, 9, 12
4	Students will know differences in conditions and life styles associated with different types of paid and unpaid work	6

Hoyt, Kenneth B., Evaluation of Career Education and the Law (Draft), USOE, Washington, D. C., 1975.

USOE#	Objective	Grade Level
5	Students will know entry requirements for major types of paid and unpaid work	6, 8, 9, 12
6	Students will be able to identify, locate and utilize sources of information to solve career decision-making problems	8, 9, 12
7	Students will know the steps to be taken and the factors to be considered in career planning	8, 9, 12
8	Students will demonstrate active involvement in career decision-making	8, 9, 12
9	Students who are leaving the formal education system will be successful in being placed in a paid occupation, in further education or in unpaid work that is consistent with their career decision	12
10	The extent to which the number and type of job preparation opportunities have been expanded for young people in grades 9 through 12	9 to 12
11	The financial resources from Section 142 (c) of Part D of P. L. 90-576 that were expended at each of the grade level breakouts	K to 12

The evaluation questions are specific to each objective and with the exception of objectives 9-11 are stated in pre-post, non-control group terms. For example, the evaluation question appropriate to Objective 1 is:

(1) Do students participating in the Career Education program show statistically significant improvement in positive attitudes toward themselves as measured by the Self-Appraisal Inventory at grades 6, 8 and 9?

The objectives and evaluation questions are primarily concerned with student outcomes. The principal evaluation activity directed toward Treatment (Process) or Management will be observations, questionnaires, teacher logs, etc., to determine if educational activities previously mentioned were actually conducted. In addition, questionnaires will be administered to determine effectiveness of A) In-service activity, B) Singer Carrels, C) Community Involvement and D) Career Information Centers.

II. Evaluation Design

The evaluation design to be employed with objectives 1 through 8 is a pre-test, post-test non-control group design. Campbell and Stanley[1] refer to it as pre-experimental design #2. It provides marginal protection against the threats to internal and external validity. The major reasons for selecting this design are as follows:

(1) Career education activities exist in all schools to which the project has access. A non-contaminated control group could not be located within the districts.

(2) A natural reluctance to serve as a control group on the part of non-district classes.

(3) Limited funding level required cuts in the program's eudcational activities. Even if a control group could be located (unlikely), it would be difficult to justify diverting the additional funds required for testing from program activities to evaluation.

It would be desirable for USOE to fund a study to determine normal growth rates for various pre-post test intervals on the instruments approved by its panel. In this way any project's pre-post gains could be compared to a contrast group of similar socio-economic background children not involved in Career Education.

Objectives 9 and 10 will be criterion referenced. The criteria for Objective 9 is that 75 percent of the responding students (1975 graduates) indicate that they have been successful in locating a paid occupation, further education or unpaid work consistent with their career decision. The criteria for Objective 10 is a 20 percent increase in the number and type of job preparation opportunities for students between the current year and the year preceeding the project.

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[1] Campbell, Donald T. and Stanley, Julian C., *Experimental and Quasi-Experimental Designs for Research on Teaching*.

Objective 11 consists of allocating all expenses to the grade categories provided.

III. Data Sources

For Objectives 1 through 9 direct data sources will be employed. In Objectives 1 through 8 current student test data will be utilized. For Objective 9 current questionnaire responses of a random sample of recent graduates (1975) will be gathered. Objective 10 will have questionnaire responses of counselors and Coop-directors as the data source. The source of data for Objective 11 will be the financial records of the Project Director.

IV. Data Collection Instruments

The data collection instruments associated with the various objectives are as follows:

Objective USOE#	Instrument	Grade Level
1	Self-Appraisal Inventory	6, 8, 9
2	Career Development Inventory - C	8, 9, 12
3	Career Education Questionnaire Career Development Inventory - C	6 8, 9, 12
4	Career Education Questionnaire	6
5	Career Education Questionnaire Career Development Inventory - C	6 8, 9, 12
6	Career Development Inventory - C	8, 9, 12
7	Career Development Inventory - C	8, 9, 12
8	Career Development Inventory - A & B	8, 9, 12
9	Questionnaire to 1975 Graduates and Dropouts	12
10	Questionnaire to Counselors and Co-op Directors	9 to 12
11	Examination of Project's Financial Records	K to 12

All standardized instruments have been approved for these objectives by the USOE panel.

V. Sampling Plan

Stratified random sampling procedures will be employed. The approximate distribution of participating students and students to be tested by elementary school is as follows:

Target School	Grade	Population	Sample
Portage	6	100	50
Holy Name	8	60	60
Portage	8	100	50
Portage	9	100	50
Portage	12	100	50
Admiral Peary*	12	200	50
		660	310

*Objectives 9 and 10 only

Sample = 47%

VI. Data Analysis Plan

For objectives 1 through 8, a pre-test, post-test non-control group design will be employed. The data will be analyzed by grade level using the correlated "t" test at the .05 level (two-tailed). The data will also be analyzed by strata (school or district). Objectives 9 and 10 are criteria referenced and will be handled in that manner.

VII. Data Collection Plan

The data collection plan is depicted in Table X-B. ERANDA will order, distribute and score all tests and questionnaires. The tests will be administered by a trained research assistant.

IX. Reporting Plan

The pre-test data will be processed and reported to the Project Director by December 15, 1975. The final report will be submitted to the Project Director by June 15, 1976. Twenty-five (25) copies of the final report will be provided for whatever distribution the Project Director sees fit. ERANDA will make one presentation of the final report to any local individual or group at the request of the Project Director. Additional presentations will be at the rate of $100 per man day plus expenses. In addition to the product evaluation, ERANDA will make periodic visits to confirm the existence of the stipulated process and the effectiveness of spin-off activities such as Singer Career Exploration Carrels, Career Information Centers, etc. There will be an exit interview after each visitation to inform the Project Director of any discrepancy while there is time for remedial action.

APPENDIX III-1

SUMMARY OF STUDENT ENROLLMENTS IN THE PARTICIPATING DISTRICTS

DISTRICT OR SCHOOL	ENROLLMENT*			
	K-5	6-8	9-12	Total
Blacklick Valley	676	353	433	1462
Cambria Heights	954	629	809	2392
Central Cambria	1239	687	792	2718
Penn Cambria	960	577	810	2347
Portage Area	586	397	464	1447
Holy Name School	225	135	-0-	360
Bishop Carroll School	-0-	-0-	750	750

* Based on WADM figures from Appalachia Intermediate Unit 08 1975-76 School Year Statistical Report.

APPENDIX IV-1

TEACHER CURRICULUM INFUSION WORKSHOP MATERIALS

PORTAGE AREA ELEMENTARY MIDDLE SCHOOL
WORKSHOP MATERIALS

Introduction

A teacher orientation was provided to all 1-6 grade teachers. The purposes were:

- to introduce teachers to the Singer Vocational Evaluation System
- to explicate the concept of curriculum infusion utilizing examples of units prepared by Portage teachers during the previous project year
- to delineate the new guidance program being implemented at the Elementary Middle School this year.

Materials

The following materials, were utilized:

- Decription/Selection Form for the Singer Carrels (Appendix IV-6)
- A one page description of each Singer learning station
- A list of "Pennsylvania's Ten Goals of Quality Education" (Attachment
- Career cluster booklets distributed by: Career Education Service, Central Susquehanna I.U. Lewisburg, Pa.
- Copies of Teacher prepared curriculum infusion units.

PENNSYLVANIA'S TEN GOALS OF QUALITY EDUCATION

Quality education should:

I Help every child acquire the greatest possible understanding of himself or herself and appreciation of his or her worthiness as a member of society.

II Help every child acquire understanding and appreciation of persons belonging to other social, cultural and ethnic groups.

III Help every child acquire, to the fullest possible extent, mastery of the basic skills in the use of words and numbers.

IV Help every child acquire a positive attitude toward the learning process.

V Help every child acquire the habits and attitudes associated with responsible citizenship.

VI Help every child acquire good health habits and an understanding of the conditions necessary for maintaining of physical and emotional well-being.

VII Give every child opportunity and encouragement to be creative in one or more fileds of endeavor.

VIII Help every child understand the opportunities open to him/her to prepare for a productive life and help each child to take full advantage of those opportunities.

IX Help every child to understand and appreciate as much as possible of human achievement in the natural sciences, the social sciences and the humanities and the arts.

X Help every child to prepare for a world of rapid change and unforeseeable demands in which continuing education throughout adult life should be a normal expectation.

THEORETICAL STRUCTURE FOR CAREER EDUCATION

1. Elementary
    a. AWARENESS
    b. Exploration
    c. self-understanding
2. Middle School/Jr. High
    a. awareness
    b. EXPLORATION
    c. self-understanding
    d. skill development
    e. decision making
3. High School
    a. awareness
    b. exploration
    c. self-understanding
    d. SKILL DEVELOPMENT
    e. DECISION MAKING

HOLY NAME ELEMENTARY SCHOOL WORKSHOP MATERIALS

Introduction

A series of Teacher orientations were provided for all 1-8 grade level teachers. The objectives were:

- to define Career Education at both a philosophical and operational level
- to identify Career Education project objectives for the third year.
- to delinate the role description for teacher aids for curriculum infusion implementation.
- to define teacher tasks for Career Education Curriculum Infusion Units.

Materials

Materials developed by project staff for meeting the above objectives were:

- A working paper, "Career Education Concepts" (Attachment 1)
- A list of "Career Education Project Objectives" (Attachment 2)
- A list of "Teacher Tasks for Career Education Curriculum Infusion (Attachment 3)

ATTACHMENT 1

CAREER EDUCATION CONCEPTS*

I. A GENERIC DEFINITION OF CAREER EDUCATION

In a generic sense, the definition of "career education" must obviously be derived from definitions assigned the words "career" and "education". For purposes of seeking a generic definition for career education, these two words are defined as follows:

> "Career" is the totality of work one does in his or her lifetime.
>
> "Education" is defined as the totality of experiences through which one learns.

Based on these two definitions, "career education" is defined as follows:

> "Career education" is the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living."

"Career", as defined here, is a developmental concept beginning in the very early years and continuing well into the retirement years. "Education", as defined here, obviously includes more than the formal educational system. Thus, this generic definition of career education is purposely intended to be of a very broad and encompassing nature. At the same time, it is intended to be considerably less than all of life or one's reasons for living.

II. BASIC PHILOSOPHICAL ASSUMPTIONS OF CAREER EDUCATION

A. Since both one's career and one's education extend from the pre-school through the retirement years, career education must also span almost the entire life cycle.

B. The concept of productivity is central to the definition of work and so to the entire concept of career education.

C. Since "work" includes unpaid activities as well as paid employment, career education's concerns, in addition to its prime emphasis on paid employment, extend to the work of the student as a learner, to the growing numbers of volunteer workers in our society, to the work of the full-time homemaker, and to work activities in which one engages as part of leisure and/or recreational time.

D. The cosmopolitan nature of today's society demands that career education embrace a multiplicity of work values, rather than a single work ethic, as a means of helping each individual answer the question "Why should I work?"

E. Both one's career and one's education are best viewed in a developmental, rather than in a fragmented sense.

F. Career education is for all persons--the young and the old; the mentally handicapped and the intellectually gifted; the poor and the wealthy; males and females, students in elementary schools and in the graduate colleges.

G. The societal objectives of career education are to help all individuals: a) want to work; b) acquire the skills necessary for work in these times; and c) engage in work that is satisfying to the individual and beneficial to society.

H. The individualistic goals of career education are to make work: a) possible, b) meaningful, and c) satisfying for each individual throughout his or her lifetime.

I. Protection of the individual's freedom to choose and assistance in making and implementing career decisions are of central concern to career education.

J. The expertise required for implementing career education is to be found in many parts of society and is not limited to those employed in formal education.

III. CAREER EDUCATION TASKS: INITIAL IMPLEMENTATION

To the greatest extent possible, initiation of comprehensive career education programs should be undertaken utilizing existing personnel and existing physical facilities. The assumption of new roles, on the part of some staff members, can be accomplished in most educational systems with no serious loss in total institutional productivity. While the emphasis and methodology will vary considerably from one educational level to another, the following kinds of tasks are essential for initial implementation of a comprehensive career education effort.

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*Adapted from: Kenneth B. Hoyt, An Introduction to Career Education (USOE Policy Paper) 1974 Mini-Conference.

A. All classroom teachers will:

1. Devise and/or locate methods and materials designed to help pupils understand and appreciate the career implications of the subject matter being taught.
2. Utilize career-oriented methods and materials in the instructional program, where appropriate, as one means of educational motivation.
3. Help pupils acquire and utilize good work habits.
4. Help pupils develop, clarify, and assimilate personally meaningful sets of work values.
5. Integrate, to the fullest extent possible, the philosophical assumptions of career education into their instructional activities and teacher-pupil relationships.

B. In addition to A above, some teachers will be charged with:

1. Providing students with specific vocational competencies at a level that will enable students to gain entry into the occupational society.
2. Helping students acquire job-seeking and job-getting skills.
3. Participating in the job-placement process.
4. Helping students acquire decision-making skills.

C. The business-labor-industry community will:

1. Provide observational, work experience, and work-study opportunities for students and for those who educate students (teachers, counselors, and school administrators).
2. Serve as career development resource personnel for teachers, counselors, and students.
3. Participate in part-time and full-time job placement programs.
4. Participate actively and positively in programs designed to lead to reduction in worker alienation.
5. Participate in career education policy formulation.

D. The home and family members where pupils reside will:

1. Help pupils acquire and practice good work habits.
2. Emphasize development of positive work values and attitudes toward work.
3. Maximize, to the fullest extent possible, career development options and opportunities for themselves and for their children.

E. Educational administrators and school boards will:

1. Emphasize career education as a priority goal.
2. Provide leadership and direction to the career education program.
3. Involve the widest possible community participation in career education policy decision making.
4. Provide the time, materials, and finances required for implementing the career education program.
5. Initiate curriculum revision designed to integrate academic, general, and vocational education into an expanded set of educational opportunities available to all students.

IV. LEARNER OUTCOMES FOR CAREER EDUCATION

Like the career education tasks outlined above, specific learner outcomes for career education will vary, in emphasis, from one educational level to another. For purposes of forming a broad basis for evaluating the effectiveness of career education efforts, a listing of developmental outcome goals is essential. In this sense, career education seeks to produce school leavers (at any age and at any level) who are:

A. Competent in the basic academic skills required for adaptability in our rapidly changing society.

B. Equipped with good work habits.

C. Capable of choosing and who have chosen a personally meaningful set of work values that lead them to possess a desire to work.

D. Equipped with career decision making skills, job hunting skills, and job getting skills.

E. Equipped with vocational personal skills at a level that will allow them to gain entry into and attain a degree of success in the occupational society.

F. Equipped with career decisions that they have made based on the widest possible set of data concerning themselves and their educational-vocational opportunities.

G. Aware of means available to them for continuing and recurrent education once they have left the formal system of schooling.

H. Successful in being placed in a paid occupation, in further education, or in a vocation that is consistent with their current career education.

I. Successful in incorporating work values into their total personal value structure in such a way that they are able to choose what, for them, is a desirable lifestyle.

It is important to note that these learner outcome goals are intended to be applied to persons leaving the formal educational system for the world of work. They are not intended to be applicable whenever the person leaves a particular school. For some persons, then, these goals become applicable when they leave the secondary school. For others, it will be when they have left post high school occupational education programs. For still others, these goals need not be applied, in toto, until they have left a college or university setting.

Dr. Baylis/Mrs. Sowers - 1/20/76

ATTACHMENT 2

CAREER EDUCATION PROJECT OBJECTIVES
1975-76

OBJECTIVES:

1. Students will display positive attitudes toward themselves.
2. Students will recognize that social, economic, educational and cultural forces influence their development.
3. Students will know the major duties and required abilities of different types of paid and unpaid work.
4. Students will know differences in conditions and life styles associated with different types of paid and unpaid work.
5. Students will know entry requirements for major types of paid and unpaid work.
6. Students will be able to identify, locate and utilize sources of information to solve career decision-making problems.
7. Students will know the steps to be taken and the factors to be considered in career planning.
8. Students will demonstrate active involvement in career decision-making.

ATTACHMENT 3

TEACHER TASKS FOR CAREER EDUCATION CURRICULUM INFUSION UNITS

I. Pre-Implementation Tasks

   A. TITLE: Topic to be developed

   B. OBJECTIVES: What it is that you expect students to do, experience, or feel from involvement in this unit?

   C. MATERIALS/RESOURCES: List of materials to be developed or purchased and people/community resources needed.

   D. INSTRUCTIONAL STRATEGIES: What are the specific activities that students will undertake to meet the stated objectives?

   E. EVALUATION: How will you determine if students have adequately met the stated objectives?

      . Pre/Post Test

      . Written Paper Pencil Test or

      . Performance Test

II. Post-Implementation Tasks

   A. DEVELOPMENTAL PROCESSES: Describes the specific processes used for the design of the unit, e.g. human/community resources. What procedures did you use to develop this unit?

   B. UNIT REVISION: Preparation of final printed copy of unit.

Dr. Baylis - 1/23/76

APPENDIX IV-2

CAREER EDUCATION

CURRICULUM INFUSION UNITS

CAREER EDUCATION CURRICULUM INFUSION UNITS

A Position Paper: Philosophy and A Rationale for Curriculum Design within the framework of the Career Education Curriculum Infusion Strategy.

Written by: Clifford A. Baylis, Jr. Ph.D.

The task of curriculum design seems, at first sight, to be one posing insurmountable obstacles to the designer, teacher. Yet a closer look indicates that when the task is defined in terms of more specific tasks it becomes manageable. However, prerequisite to this attempt at making curriculum design possible, it seems necessary that the curriculum designer, teacher, give some time clarifying his/her thoughts in terms of the basic premises from which curriculum will flow, and to identify the general framework witin which curriculum will be designed. Therefore it was the purpose of this paper to indicate some thoughts representing an attempt to synthesize a philosophy and rationale for curriculum design into the ten concrete examples of Teacher Prepared Career Education Curriculum Infusion Units presented in this appendix.

Curriculum design must be based on a concern for at least four components: the society; the learner; the subject; and the instructional processes. Society must be considered because it provides the basic philosophic framework within which the curriculum will be implemented. It provides the physical resources, the people, as well as establishing the perameters and directions of need for the curriculum to exist. Thus, the curriculum designer needs to be aware of, and in close communication with, his society both from the viewpoint of being able to translate the needs into concrete attempts at meeting these needs and to being able to effectively communicate his attempts at curriculum design so as to gain a degree of acceptance which will allow implementation.

The curriculum designer's second concern must be for the learner. This concern needs to be translated into a specification of relevant specific characteristics somewhat detailed and explicit. These relevant characteristics are, in general, of two kinds: those characteristics which are primarily physical or, at times, physiological, e.g., adequate vision, hearing, age etc.; and, those characteristics which are under the learner's control or a part of his past experiences, i.e., his "entry behaviors" (e.g. prerequisites, maturation, intelligence, attitudes, aptitudes, etc.). For this writer, concern for the learner is the essence of the curriculum design task, for without it there is no usefull product.

A third area of concern is subject competence. This is perhaps the area where the curriculum designer's, teachers, skills at interpersonal relationships come into focus, where ability to make use of people as resources becomes crucial. It seems obvious that a high degree of competence in the subject area is an absolute necessity, or at least the ability to get other people to provide the necessary input. In addition, the curriculum designer must be able to relate subject to his conception of society, the learner, and the instructional process.

Finally, a curriculum designer needs to be concerned with the instructional process. If the instructional conditions are not sufficiently specified in the curriculum, it seems unlikely that the goals established will be met. This concept of instruction also implies that materials, methods and people be selected as part of the curriculum design process.

In summary, the curriculum designer needs to synthesize his concern for society, learners, subjects, and instructional processes into a coherent whole, a curriculum. Finally, it seems to be necessary, at this point, to delimit the definition of curriculum design to the tasks involved in developing materials, programs, and procedures appropriate to career education concepts and processes as defined in the "Generic Definition" presented at teacher workshops (Appendix IV-1;

Perhaps the best way to explicate the rationale used for the design of the Career Education Curriculum Units presented in this appendix is to compare it to a cybernetic system, a closed loop system where output is returned to the system and consequently affects the future output of the system. This seems appropriate because curricuulum is not static but dynamic in the sense that it must be continuously evolving. Therefore, the role of the curriculum designer becomes one of constantly recycling information in terms of realities and outcomes of his curriculum when it is in use. With this model in mind the rationale for curriculum design utilized to facilitate teacher ability to write curriculum infusion units becomes more explicit.

The designer must begin with a personal conceptualization of beliefs about society, the learner the subject content/ structure and instructional processes: The examination of these beliefs leads directly into the process of developing tentative objectives and appropriate evaluative criteria, i.e., what are the outcomes and how do I prepare to measure them? Logically, the next step in the process is to evaluate the tentative objectives utilizing the evaluative criteria. The cybernetic nature of this rationale becomes more apparent when the products of this evaluative process are returned to the system. On a concrete level, teacher workshops and individual consultations were designed to facilitate the integration of unique beliefs about society, the learner, the subject area and the instructional processes into the identification of a set of tentative objectives and evaluation procedures, i.e., the out put from this stage of curriculum design.

With the return of this ouput to the system, i.e. tentative objectives and evaluative criteria, the process of curriculum design begins again. The process now generates a unique set of revised objectives. These are the objectives remaining after being subjected to the evaluative criteria. These should constitute the relevant terminal objectives for the curriculum being designed. They should be broad enough and inclusive enough to serve as starting points for the task analysis to be engaged in later in the process. Now the designer's task is one of evaluating and reviewing, or getting this task done by experts; and, finally, of selecting instructional objectives for the curriculum being designed. The output of this phase of curriculum design is now referred to as instructional objectives.

With the production of a new output, i.e. instructional objectives, the dynamic nature of the process is once again activated by the analysis of these instructional objectives by experts and/or the designer. It is at this stage that individual characteristics of the learner and subject content come under consideration. The designer must begin to think in terms of the performance competencies comprising the subject; he must focus on characteristics of the learner; he must begin to apply evaluative criteria to the goal of determining the entry level of students and the content prerequisites; he must begin designing learning experiences; finally, he must make provisions for assessing and evaluating the nature and kind of knowledge or competence to be achieved by the learner in relation to performance criteria he establishes. Out of this process the output should be specific learning activities. The concrete product representative of teacher performance at this stage was a first draft of a Career Education Unit presented to project staff by each of the ten teachers involved in the curriculum infusion strategy.

This output, learning activities, is re-cycled through the system at the next stage of the design process. It is at this stage that the designer's focus shifts to organizing and sequencing the learning activities in relation to the performance objectives derived and analyzed at the previous stage. The structural characteristics of both subject matter and objectives are analyzed according to conceptual hierarchies and/or operating rules. The designer is further concerned with the construction of teaching procedures and materials which are evaluated in terms of pre-instructional behavior, basic assumptions about curriculum, and evaluative criteria previously established at the first stage of design. Out of this process the output is a specific program of studies. Concretely, teachers and project consultant staff made modifications, located resources and sequenced instructional activities resulting in the preparation of a final draft of the Career Education Unit ready for implementation in the classroom.

The program of studies, output of the previous stage, is to be recycled or returned to the system to continue the process of design. It is at this stage that the program of studies is put to the test, i.e. is experienced by the learner. The principle output from this stage of curriculum design is a bank of data to be fed back into the design process.

The data, taken collectively, can be called learning experiences. At this, the final stage in the design process, the learning is measured and evaluated in terms of evaluative criteria, objectives, and the learner. Finally, the learning activities, objectives and evaluative criteria are modified and revised and fed back into the system of design. Thus, the cybernetic nature of design is demonstrated in the repetition of the whole process. Curriculum design becomes a continuous ongoing process following the above rationale. On a concrete level, the ten Career Education Units presented in this appendix were the products of these processes.

In summary, an attempt has been made to present a basic philosophy prerequisite to curriculum design and to present a rationale for curriculum design which could be considered a framework within which a curriculum designer could carry out his task. It should be apparent from the above statements that this task is one requiring an extended effort on the part of the designer as well as an ongoing commitment to both learners and the curriculum designed. Additionally, an attempt was made to synthesize this philosophy and rationale into concrete examples of the curriculum design processes utilized with teachers as a component of the Career Education curriculum infusion strategy implemented to meet project objectives. (See Chapter IV for a more complete description of specific implementation processes).

A SAMPLE CAREER EDUCATION
CURRICULUM INFUSION UNIT #0176

School: Holy Name Elementary School, Ebensburg, Pa.
Grade Level: One
Teacher: Ms. Ratski
Curriculum Consultants: Dr. Clifford A. Baylis, Jr.
Mrs. Leona M. Sowers
U.S.O.E. Career Cluster: 1200--Marketing and Distribution.
Curriculum Area: Mathematics, Language Arts and Health

A. TITLE: Buying and Selling in a Simulated "Store"

B. OBJECTIVES: Students will:

- correctly count a total amount of money when buying and selling objects in the simulated "store".
- buy the appropriate food, selected from four basic food groups for a complete meal with the amount of money provided.
- use a cash register to compute the total amount of a grocery order.
- orally verbalize their perceptions of the role of sales clerk in the simulated "store".
- orally verbalize their perceptions of the role of buyer in the simulated "store".

C. MATERIAL/RESOURCES:

- Materials for simulated "store": Play paper money and real coins; cash register; clear contact paper; refrigerator or stove boxes; empty cans, bottles, milk cartons, etc. with prices marked on them.
- Learning Center Materials: Pictures of four basic food groups; sound filmstrip, YOU GOT MAD ARE YOU GLAD?, and teacher-prepared audio-tapes.
- A store clerk from local market as a resource person for group discussion.
- Career Resource Center (CRC): Located in school library.

D. INSTRUCTIONAL STRATEGIES: The students will proceed through the learning stations as follows: (Buying and selling roles may be reversed)

1. When playing "buyer" role students:
   - completed audio taped self-instructional learning activities on making change and coin values located in the learning center (these activities were developed from existing work sheets adapted to be self correcting).
   - completed small group (2-5 students) activities involving manipulation of materials on a bulletin board as directed by self-instructional audio tape.
   - completed learning activites using examples from the four basic food groups(meat, vegetable, bread, and cereal and dairy products).
   - went to classroom "Store" and "Bank" (Learning Centers) to get money and to purchase items placed on shopping lists using various amounts of real money under $1.00.
2. When playing "selling" role students:
   - viewed a film on manners "YOU GOT MAD ARE YOU GLAD?" (Filmstrip from Career Resource Center (CRC) in Holy Name School library).
   - marked prices on items in the classroom store using real price stamping machine and associated equipment.
   - stocked shelves in classroom store to demonstrate ability to classify items by the four basic food groups studied.
   - role played cashier in classroom "store".

Note: Role of Teacher Aides:

- Aides maintained and re-supplied audio tapes and other learning center materials; and supervised self-instructional learning activities of students, e.g. verified the making of correct change in "store".

E. EVALUATION:

1. Students ability to correctly count money when serving in both the role of buyer and seller was verified by the teacher aide.
2. Students wrote equations for shopping trip to classroom store, correctness verified by the teacher aide.
3. Students selected (buyer roles) and organized food

(clerk role) by the four basic food groups as verified by responses on shopping lists.

4. Students, in both small groups and individually, orally verbalized, to the teacher, feelings/opinions relative to their perceptions of the roles of both seller and buyer.

ATTACHMENT A
SAMPLE LEARNING ACTIVITY

OBJECTIVE: Students will correctly complete a shopping list by selecting any three items which total the amount of money given. Additionally, they will orally classify these items into the basic food groups previously studied in learning centers.

ROLES: Buyer - Clerk - Banker - Cashier

MATERIALS:

- classroom simulated store
- play paper money and real coins
- shopping lists (any 1-2-3 items which total an amount of money under ten cents)
- cash register
- real boxes - cans - cartons etc.
- bonus cards to be traded for candy (awarded for successful completion of learning tasks)

Sample Shopping List: to be completed by student prior to role playing buyer(in the form of an individual pocket chart on a 4 x 6 index card)

Picture	word	amt.	2¢
Picture	word	amt.	4¢
Picture	word	amt.	1¢

EQUATION:

2¢ + 4¢ + 1¢ = ☐

Student procedures for use of shopping list:

- complete shopping list
- locate items in "store"
- pay for items
- check change from cashier
- complete equation
- evaluation by teacher-aide
- collect bonus card or repeat task until mastery is reached

A SAMPLE CAREER EDUCATION
CURRICULUM INFUSION UNIT #0276

School: Holy Name Elementary School, Ebensburg, Pa.
Grade: One
Teacher: Sister Mary Louis
Curriculum Consultants: Dr. Clifford Baylis, Jr.
Mrs. Leona M. Sowers
USOE Career Cluster: 1200--Marketing and Distribution
Curriculum Area: Mathematics, Health, and Language Arts.

A. TITLE: Shopping at a Food Market

B. OBJECTIVES:

1. Students will identify the four basic food groups by classifying selected items on shopping lists, in self prepared booklet and on shelves in "store" learning station.

2. Students will demonstrate increased proficiency in vocabulary by the spelling and printing of the words necessary for the completion of shopping activities at learning station "store" and in preparation of the food booklet.

3. Students will correctly manipulate money while role-playing both clerk and customer (make/count change for completion of purchasing transaction).

4. All students will role-play clerk and customer in the simulated "store" learning station.

C. MATERIALS/RESOURCES:

Materials for simulated "store":

1. Cash register; real money

2. Other items: real food containers, e.g. empty egg and milk cartons

3. Price tags to be used on each item in store.

4. Pictures of food groups

5. Shopping list pocket chart made from construction paper containing flash cards marked with food items (see sample)

D. INSTRUCTIONAL STRATEGIES:

1. Students made food booklet with cut out magazine pictures of the four basic food groups.

2. Students printed names of all food items pictured in booklet.

3. Students used shopping list while role-playing customer in learning station "store".

4. Students read the names of three items they selected from the shelves in the simulated "store".

5. Clerk checked three items from the shopping list of student role-playing shopper and wrote the equation to determine the total amount of money.

6. Each child played the role of bank clerk and customer.

E. EVALUATION:

1. Each child will have successfully role-played both clerk and customer as verified by performance.

2. Students demonstrated their knowledge of the four basic food groups on the shopping lists and in the booklet prepared.

3. Student vocabulary enrichment was demonstrated by the spelling and printing of selected words such as milk, eggs or bread on shopping lists and in other instructional curricular enrichment areas.

4. Students utilized the concept of equations containing three numbers in utilization of shopping lists when role-playing.

5. Mastery was achieved when each child earned a star on his shopping list - one star for successful role-playing of clerk and one for customer.

6. Partial mastery was rewarded with candy upon successful playing either of the two roles.

ATTACHMENT A
SAMPLE SHOPPING LIST POCKET CHART

(made from drawing paper folded in half and stapled)

Shopping List

Clerk-*
Customer*
Child's Name

Contains three cards with printed names of pictured food items.

☐ + ☐ + ☐ = ☐

Equation $6 + 4 + 3 = 13¢$

A SAMPLE CAREER EDUCATION
CURRICULUM INFUSION UNIT #0376

School: Holy Name Elementary School, Ebensburg, Pa.
Grade: Two
Teacher: Mrs. Linda McConnell
Curriculum Consultants: Dr. Clifford A. Baylis, Jr.
Mrs. Leona M. Sowers
USOE Career Cluster: 1500--Transportation
Curriculum Area: Language Arts, Social Studies, Art

A. TITLE: "Rolling Along" - Trucks and their Services
(A Resource Unit)

B. OBJECTIVES:

1. Students will demonstrate their understanding of personal importance of transportation careers through at least one of the following vehicles: written composition, oral dramatization, class discussion or artistic expression.

2. Students will identify at least ten services provided by truckers-through a written, oral or artistic medium.

3. Students will demonstrate through oral discussion sessions comprehension of the relationship between trucker job skills and school related subjects facilitative of those skills.

C. MATERIALS/RESOURCES

1. Have stories, books or poems about truck drivers from the library (to be used in reading class) available in the classroom

2. Poster to introduce "Truck Dictionary", parts of trucks and truckers jargon.
(Educational Services, Motor Vehicle Mfg. Association of U.S. Inc., 320 New Center Building, Detroit, Michigan 48202). (Education Department, American Trucking Association, Inc., 1616 P Street, N.W., Washington, D.C. 20036).

3. Bring the following resource persons into the classroom for group discussions:
   1. Milk truck driver
   2. Bread truck driver
   3. Semi truck driver

4. Field trip to a local supermarket to observe trucks arriving, loading, unloading, and departing.

D. INSTRUCTIONAL STRATEGIES

1. Students make alphabet poems about different types of transportation,e.g.
   "A" is for ambulance
   Streaking through the night
   Knowing that my neighbor
   Will tomorrow be all right

   "T" is for truck
   Rolling along the road
   Always taking special care
   In delivering the load.

2. Students compose a "log"----
   "Pretend you are a truck driver - make a chart showing all stops, times, etc."

3. Children make up written riddles about types of cargo and orally try to stump class e.g.,

   I am orange and round
   I am packed in a crate for travel by truck.
   I taste good.
   Sometimes I am made into something to drink.
   What am I?

4. Have class look around the school "list objects you think might have been delivered here by truck."

5. Groups of students write dramatization around the following structure e.g.

   Characters: semi driver
   milk driver
   bus driver
   truck mechanic
   Setting: early morning in restaurant
   Plot: all enter restaurant and find one vacant table and enter the discussion - "Whose job is most important?

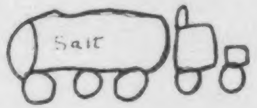
6. Students prepare for and follow up field trip to supermarket with oral discussions and wall mural.

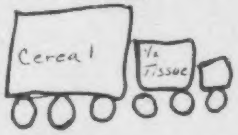
7. Students write invitations and also thank you notes to resource persons.

8. Students learn these and other words as a component of a spelling lesson:

   tractor
   trailer
   log
   delivery
   weight
   groceries
   freight
   produce
   bills

9. Students use cardboard (salt, cereal, detergent) boxes to construct different kinds of trucks,e.g.





10. Students make clay model of trucks, buses etc.

11. Students make montage using magazine pictures of different kinds of trucks, buses etc.

12. Students make mural - "Fruit from Farm to Market"

13. Students make a class booklet from pictures of different things studied in the unit which could also include poems or stories written by students.

E. EVALUATION

1. Evidence of student understanding of a personal relationship and transporation careers will be found by the teacher in at least one of the products resulting from implementation of instructional strategies.

2. Students will list orally or in a written form at least ten services provided by truckers or demonstrate knowledge of these services by artistic expressions e.g. mural, cardboard construction or dramatization.

3. Students will select school subjects related to trucker job skills on the Post-Test (see sample of Pre/Post test)

Attachment A
SAMPLE PRE/POST TEST

1. Which of these jobs does a truck driver do?
   a. ___ drive
   b. ___ load
   c. ___ unload

2. Number these in order of their importance.
   a. ___mailman
   b. ___doctor
   c. ___teacher
   d. ___truck driver

3. Draw a picture of some things a truck driver does.

4. Which of these subjects that we study are important for a truck driver to have studies?

   math spelling reading music art science

5. Spelling words

   1.
   2.
   3.
   4.
   5.
   6.

NOTE: This unit recommended for the great variety of suggestions for infusing career education concepts of "Career Awareness" at the primary level of instruction.

A SAMPLE CAREER EDUCATION
CURRICULUM INFUSION UNIT #0476

School: Holy Name Elementary School, Ebensburg, Pa.
Grade: Three
Teacher: Mrs. Janice Wilson
Curriculum Consultants: Dr. Clifford A. Baylis, Jr.
Mrs. Leona M. Sowers
USOE Career Cluster: 0400 Construction
Curriculum Area: Mathematics, Language Arts, Fine Arts.

A. TITLE: Carpentry

B. OBJECTIVES

1. Through dramatizations and resource information, students will relate (either written or orally) the three reasons for learning carpentry. (1) as hobbies (relaxation; added income, etc.); (2) to save money; (3) better quality of construction.

2. Given practice with the various tools, students will demonstrate their skill to select and use each tool appropriately when presented with a problem requiring such use and selection.

3. Through discussion, examples, and learning center activity, students will be able to name (either orally or written) 3 types of hard wood and 3 types of soft wood and give at least one example of the use of hard wood and soft wood.

4. Having been given a list of specific carpentry terms (followed by a discussion of each term, illustration, or demonstration), students will be able to match each term with a correct description of it.

5. Having carried out the activities described in the unit, students will write at least two ways in which carpentry is related to school subject areas.

6. Having been given practice sanding and finishing wood, students will be able to explain what is meant by sanding and finishing wood, and will demonstrate this skill when building a bird feeder.

C. MATERIALS/RESOURCES

1. Carpentry tools: coping saws, hammers screwdrivers, measuring rules, squares, hand drills, pliers and wrenches.

2. Resource Personnel:

- Carpenter/Father of a child in the room
- Students from the area vocational technical school.

3. Supplies: scrap lumber, finishing nails, plastic wood, white glue, scrap paint, paint brushes, and sandpaper (80 grit).

4. A teacher prepared booklet for each child, "What's in a tool box?" (See ATTACHMENT A)

D. INSTRUCTIONAL STRATEGIES

1. Objective One:

- Teacher and teacher-aid did a dramatization showing carpentry as a leisure-time activity, followed by student discussion.
- A resource person, parent discussed his hobby, carpentry and how it is a source of supplementary income e.g. Cabinet making, home building and flower box for own use.
- Students used a building materials supply house catalogue to estimate cost of constructing a flower box and compared this estimated cost to the purchase of a similar item from the local hardware store.

2. Objective Two:

- Teacher supplied each student with a booklet containing pictures of tools, and their uses (See ATTACHMENT A). As each tool is discussed individual students demonstrated at least one type of tool from each group: e.g., using a tape rule to measure his desk or using a screwdriver to tighten and loosen screws on a form board.
- Learning Centers were established to provide directions (either taped or written) for each student on the correct use of a saw, hammer, tape rule, screwdriver, hand drill, level and square.

3. Objective Three:

- Students discussed and showed examples (named) of hard and soft woods.

- Students set up a display of different types of wood with each labeled, e.g., oak, maple, walnut, teak, pine, fir, hemlock. Students put each sample under the correct heading, "Hard Woods" or "Soft Woods." Students listed major uses of each type of wood (Hard - Soft).
- Students taped correct answers on bottom of sample blocks of wood as a self-checking activity demonstrating their knowledge of kinds of wood.

4. Objective Four

- Following a discussion and demonstration, or examples of each, if possible, students received a list of carpentry terms to be studies (ex. sanding, gluing, joist, studding, furring, molding).
- Students matched words with definitions. Students made a "Carpenter's Dictionary" Listing terms, definitions and illustrations.

5. Objective Five

- Students studied and used correctly in sentences carpentry terms as a unit in spelling.
- Students used a math learning center to gain practice in using the ruler and tape measure a self correcting format was utilized.
- Students participated in a two part activity:

  e.g. Part I Each student sanded a piece of wood, selected a stain appealing to them and stained it.

  e.g. Part II Students made a plaque by painting a picture and mounting it on the wood they sanded and stained.
- As a culminating activity, students completed a project of their choice, e.g., birdhouse, bookends, etc.

6. Objective Six

- A carpenter spoke to the class and answered questions such as::(1) How did you become a carpenter? (2) Is it a career or hobby? (3) What kind of work have you done? (4) How does it help your family? (5) Does it help you save money?

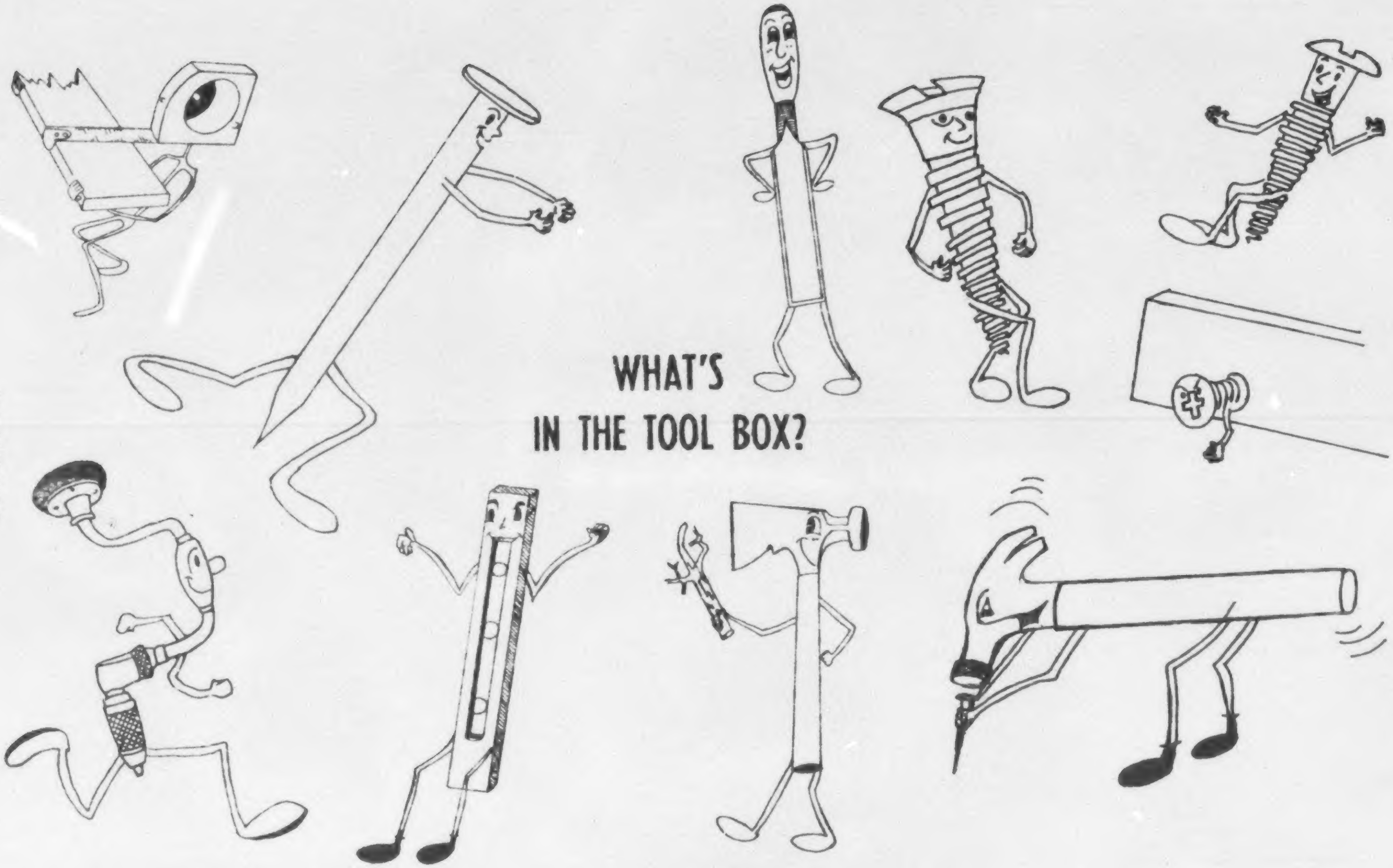
7. Objective Seven

- Students wrote a paragraph answering the following questions: Did I enyoy this unit? Why? Would I like carpentry as a hobby? Why? and Would I like to learn more? Why?

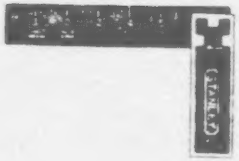
E. EVALUATION:

1. Evaluation of the skills and competencies focused upon in this unit were an integral component of the specific instructional strategies (Part D, above).
2. Evaluation of student performance in mathematical skills was accomplished with performance and paper-pencil type tests.

ATTACHMENT A

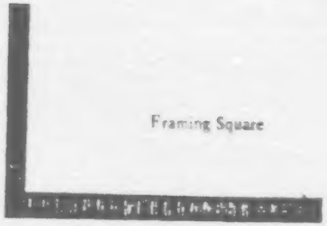


WHAT'S
IN THE TOOL BOX?



Try Square

Try and Miter Square



Framing Square

VOCABULARY WORDS

1. check
2. condition
3. damp
4. flush
5. marking
6. object
7. permanent
8. permit
9. rafter
10. stud

TOOL	USES
1. FRAMING SQUARE--	General layout work, laying out angles, spacing studs, joists, rafters and for calculating and marking, also used in carpentry when building a house or building. It is also used because of the many tables found on the square.
2. TRY SQUARE ------	Used for laying out angles, checking and marking, testing for squareness of corners.
3. TRY AND MITRE--- SQUARE	Is the same as the try square but is used mostly to mark a board at 45 degrees for making a miter.

DO'S

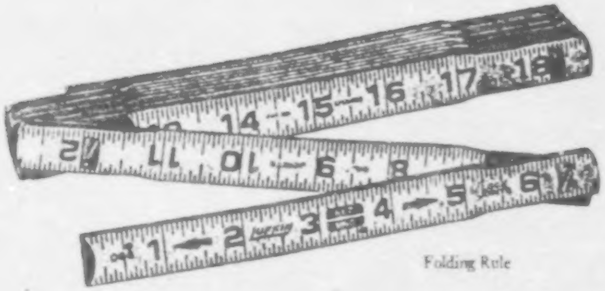
Applies to all squares mentioned.

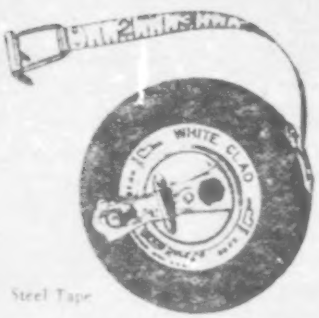
1. When marking or checking make sure the square is placed flush against the stock.
2. Keep the square clean.
3. Make sure the square isn't moved when marking a line.
4. Put tools away when not being used.

DONT'S

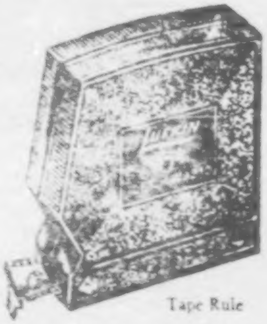
Applies to all squares mentioned.

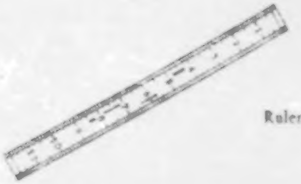
1. DON'T throw the square.
2. DON'T use the square as a hammer.
3. DON'T strike the square with a hammer.
4. DON'T walk on the square.
5. DON'T leave tools lying around after being used.


Folding Rule



Steel Tape


Tape Rule


Ruler

VOCABULARY WORDS

1. ability
2. carpenter
3. circumference
4. divide
5. equal
6. express
7. kinking
8. length
9. surface
10. width

12 inches : 1 foot
36 inches : 1 yard
3 feet : 1 yard

The ability to measure accurately depends on the correct use of the measuring tool.

The yard can be divided into three equal parts called feet.

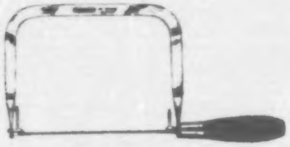
The foot can be divided into twelve equal parts called inches.

The inch can be divided into equal parts, such as: halves, quarters, eighths, and sixteenths.

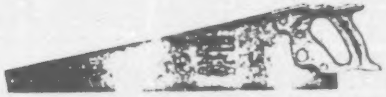
Measurements that are longer than twelve inches are expressed in terms of so many feet and inches.

TOOL	USES
1. STEEL TAPE --	Measures lengths up to 50 or 100 feet. Used in measuring buildings and building foundations.
2. TAPE RULE ---	Generally 5 to 12 feet in length. Used for making short measurements and finding circumferences.
3. FOLDING RULE --	Used mostly by the carpenter. Used for measuring lengths and widths of boards, also thickness of boards. The folding rule is self-supporting which means that after each section is opened it is locked in place and remains open.
4. RULER ---	The ruler is used for short measurements usually up to twelve inches, also used for measuring inches, half inch etc., and used for beach work.

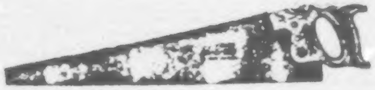
Hack Saw



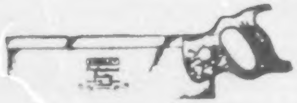
Coping Saw



Rip Saw



Cross Cut Saw



Back Saw

Compass Saw

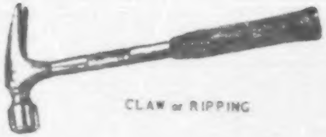
VOCABULARY WORDS

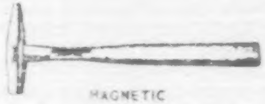
1. across
2. coarse
3. concern
4. fine
5. narrow
6. operation
7. precise
8. rigid
9. smooth
10. stiff

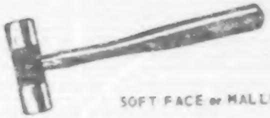
Many types of saws are used in cutting operations. We will be concerned only with those saws which you may have to use at one time or another.

TOOL	USES
1. CROSSCUT SAW--	Has fine teeth and is used in cutting boards across the grain. Also used for cutting flooring, inside trim and framing.
2. RIP SAW -------	Has coarse teeth and is used for cutting wood with the grain.
3. COPING SAW -----	Has a small frame and uses a narrow blade. Used to make smooth and precise cuts, especially irregular cuts, circles and curves.
4. BACK SAW ------	The back saw has a metal spine or back along the top edge to help keep the saw stiff. It is usually used in a miter box to make angle or square cuts on molding.
5. HACK SAW ------	Is usually made with a rigid adjustable frame and is used mostly for cutting metal.
6. COMPASS SAW ---	Used to cut circles or curves in surfaces where a coping saw cannot be used.

HAMMERS


CLAW or RIPPING


MAGNETIC


SOFT FACE or MALLET

BALL PEEN

VOCABULARY WORDS

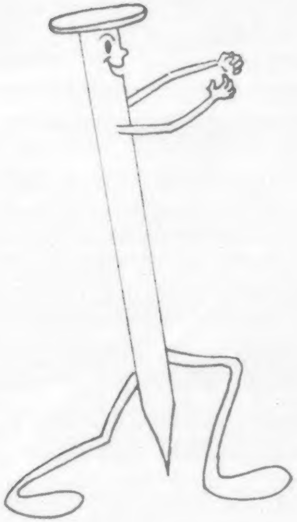
1. damage
2. depend
3. general
4. loose
5. mar
6. pry
7. repair
8. strike

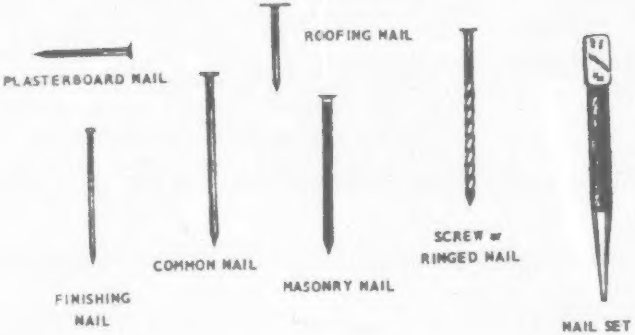
The hammer is a very simple striking tool and comes in different sizes and shapes.

The type of hammer you use will depend on the type of job you are going to do.

TOOL	USES
1. CLAW OR RIPPING HAMMER	General nailing, ripping boards, prying boards, pounding joints together, general maintenance, cabinet work, construction work and dismantling work.
2. SOFT FACE OR MALLET	Driving parts together in assembling joints and any repair work where a metal hammer might cause damage or mar the finish.
3. MAGNETIC HAMMER	Tacking carpets and used for upholstery work or repair.
4. BALL PEEN HAMMER	All purpose mechanic's tool. Used for driving chisels, spreading rivets and shaping metal. It is used in automotive shops and metal shops.

NAIL



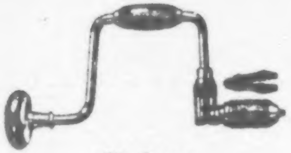


VOCABULARY WORDS

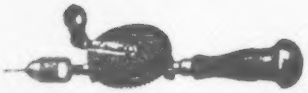
1. construction
2. correct
3. different
4. fasten
5. installing
6. joist
7. rafter
8. size
9. specific
10. stud

Nails are made in different sizes and shapes, each for a specific kind of work.

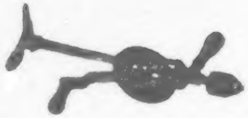
TOOL	USES
1. COMMON NAIL------	General construction and carpentry work such as nailing studs, joists or rafters, etc.
2. FINISHING NAIL-----	General construction and carpentry. Used in moldings and for finishing work such as door and window trim, etc.
3. SCREW OR RINGED NAIL--------	This type of nail is usually used when there is a need for great holding power. Used on floor construction mostly hardwood flooring such as oak.
4. PLASTERBOARD NAIL-	Used for installing gypsum, wallboard or plasterboard.
5. ROOFING NAIL------	Roofing installation such as roofing shingles or roll roofing.
6. MASONRY NAILS-----	Used to fasten material to concrete or a masonry surface, cement block, etc.
7. NAIL SET---------	This is not a nail but is used to drive the beads of finishing nails into the wood, so that the nails can then be covered with putty.



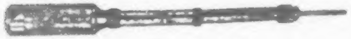
Bit Brace



Hand Drill



Breast Drill



Automatic Drill

VOCABULARY WORDS

1. complete
2. hollow
3. pilot
4. proper
5. remove
6. secure
7. select
8. special

TOOL	USES
1. HAND DRILL------	Used for drilling small holes in wood or metal. Usually the drill bits are 1/4 inch or smaller. This drill has a hollow handle where drill bits can be kept.
2. AUTOMATIC DRILL--	Used for drilling small holes. It is useful in making pilot holes for wood screws and uses drill bits 1/16 inch up to 3/16 inch.
3. BREAST DRILL-----	This drill is larger than the hand drill and uses drill bits as large as 1/2 inch.
4. BIT BRACE--------	The bit brace takes a special kind of bit called a square shank bit or auger bit. It is used for bigger jobs than the other drills on this page.

Regular
Screwdriver

Automatic
Screwdriver

Square
Shank
Screwdriver

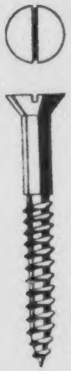
Phillips
Screwdriver

VOCABULARY WORDS

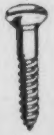
1. loose
2. main
3. pry
4. remove
5. several
6. special
7. speed
8. twist

The screwdriver is used for driving screws into and removing screws from wood or metal. It is a good idea to have several different types and sizes around.

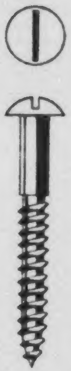
TOOL	USES
1. REGULAR SCREWDRIVER--	General purpose work, loosening and tightening screws.
2. PHILLIPS SCREWDRIVER--	Used for special types of screws called Phillips screws, which are found in automobiles and machines, etc.
3. AUTOMATIC SCREWDRIVER-	Used for speed or where many screws need to be driven. This screwdriver can use both the regular or Phillips head.
4. SQUARE SHANK SCREWDRIVER----------	This type is used with a wrench when screws are rusted or are hard to remove.



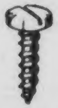
Flat Head Wood Screw



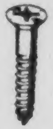
Oval Head
Wood Screw



Round Head Wood Screw



Pan Head
Sheet Metal Screw



Phillips Head
Sheet Metal Screw

VOCABULARY WORDS

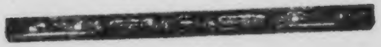
1. assemble
2. avoid
3. complete
4. concern
5. damage
6. entire
7. fasten
8. insert
9. maximum
10. ordinary

We will be concerned with only two general types of screws, the ordinary wood screw and the sheet metal screw. Screws are used when maximum holding power is needed.

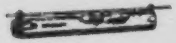
The way you can tell a wood screw from a sheet metal screw is by the thread.

TOOLS	USES
1. WOOD SCREWS--------	Used to fasten pieces of wood together or to fasten objects to a wood surface or wall. Wood screws are threaded only two thirds of the way from the point. Wood screws should be used when nails will not do the job.
2. SHEET METAL SCREWS–	Used for fastening pieces of metal together or fastening objects to metal. Sheet metal screws are threaded all the way from the point to the head.

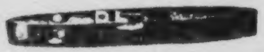
Mason's Level

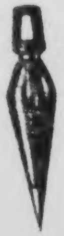


Aluminum Line Level



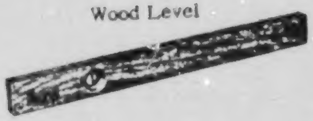
Torpedo Level





Plumb Bob

Wood Level



VOCABULARY WORDS

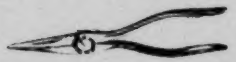
1. common
2. distance
3. horizontal
4. level
5. miniature
6. position
7. relate
8. vertical

The level is a tool used to make sure that construction work is level on a horizontal or vertical position. The level is the only tool that can give you a parallel or level line without any other reference point. It can be made of wood or aluminum.

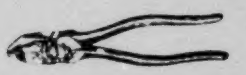
TOOL	USES
1. WOOD LEVEL------	Testing for levelness on the horizontal and plumb for vertical position. Generally an all purpose level.
2. MASON'S LEVEL----	The mason's level is a four foot level used for testing levelness on the horizontal and vertical positions. Used mostly when working with cement block and brick work.
3. TORPEDO LEVEL---	Usually about 9 inches long. Used for testing on the horizontal or vertical position. Used in places where a larger level cannot be used.
4. LINE LEVEL------	Used for testing levelness on the horizontal or vertical position. Can be hung on a string or chalk line. Used in excavation work or anywhere you need a miniature level.
5. PLUMB BOB--------	A weighted metal object on a string used to plumb and align long pieces of steel and other building materials.

10

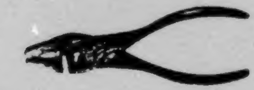
Needle Nose Pliers



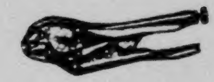
Electrician's Pliers



Combination Pliers



Vise Grip



VOCABULARY WORDS

1. bend
2. common
3. difficult
4. general
5. remove
6. replace
7. splice
8. tend

Pliers are made in many different sizes, shapes and types.

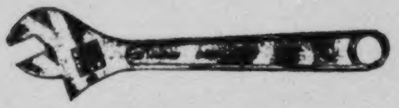
TOOLS **USES**

1. COMBINATION SLIP JOINT PLIERS —The slip joint type of pliers are probably the most common pliers. They are used for general work such as bending metal.

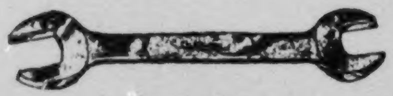
2. ELECTRICIAN'S PLIERS ——Used a great deal in electrical work such as cutting wires and insulation, making splices and other wire replacements.

3. VISE GRIP ———————— Used on bolts that are rusted or that are difficult to remove. It is also used as a holding tool and clamp.

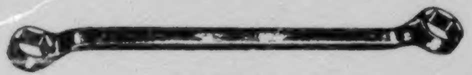
4. NEEDLE NOSE PLIERS———Used in places where other pliers won't fit, hard to get areas.



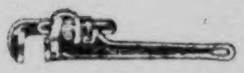
Adjustable Wrench



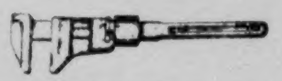
Open-End Wrench



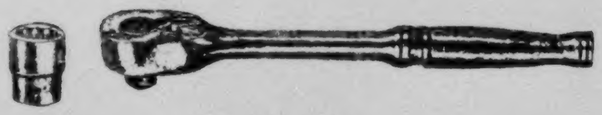
Box Wrench



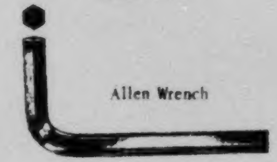
Pipe Wrench



Monkey Wrench



Socket Wrench



Allen Wrench

VOCABULARY WORDS

1. common
2. equipment
3. fasten
4. general
5. loose
6. odd
7. popular
8. relate
9. tight
10. various

There are many different kinds and sizes of wrenches for different types of jobs.

TOOL	USES
1. ADJUSTABLE WRENCH–	Used for loosening or tightening nuts and bolts. Used in general types of maintenance work where odd sized nuts and bolts may be found.
2. OPEN-END WRENCH–––	Used mostly around the automobile shop and machine shop where machine screw nuts are found on electrical equipment.
3. BOX WRENCH–––––––––	Used for tightening and loosening nuts and bolts and are popular among mechanics.
4. PIPE WRENCH–––––––	Used mostly on round objects such as pipes, also used a great deal in the plumbing industry.
5. MONKEY WRENCH––––	This is probably the most common wrench found in the carpenter's tool box. Used for general all around work.
6. SOCKET WRENCH ––––	This wrench is usually used by auto mechanics. It can be used in tight places and comes in various sizes, usually in sets.
7. ALLEN WRENCH––––––	A key type wrench used to fasten pulleys.

A SAMPLE CAREER EDUCATION
CURRICULUM INFUSION UNIT #0576

School: Holy Name Elementary School, Ebensburg, PA
Grade: Three
Teacher: Mrs. Mary Ann Johnson
Curriculum Consultants: Dr. Clifford A. Baylis, Jr.
Mrs. Leona M. Sowers
USOE Career Cluster: (0500 Consumer and homemaking)
Curriculum Area: Mathematics, Language Arts, Fine Arts.

A. TITLE: Learning About Sewing

B. OBJECTIVES

COGNITIVE OBJECTIVE #1: Given appropriate opportunities to participate in dramatization and comparative shopping simulations the children will verbalize (written and/or orally) the three reasons for sewing: (1) hobbies (relaxation etc.); (2) for better quality construction, and (3) to save money.

COGNITIVE OBJECTIVE #2: Given practice with the various tools (listed under Part C of this unit) students will demonstrate their skill to select and use each tool appropriately when presented with a problem requiring such use and selection. e.g. Use the tracing wheel for pattern tracing; select and explain reasons for kinds of scissors in terms of their purpose and function; or demonstrate kinds of hand stitches on card board.

COGNITIVE OBJECTIVE #3: While working on the particular object selected (book bag, etc.) each child will demonstrate his/her ability to (a) apply the skills and (b) to both select and use the appropriate tools, needed for completion of the object to the satisfaction of both teacher and child.

COGNITIVE OBJECTIVE #4: Given instructional strategies related to career exploration of the needle trades. Student will (a) write at least two ways the needle trades are related to school subjects. (b) list tools by naming when shown particular tools. (d) describe in their own words, what a sewing factory is like in terms of equipment, etc.

AFFECTIVE OBJECTIVE#1: Given opportunities to take parts in dramatizations and simulations the children will: (1) discuss comparative feelings about quality of objects bought/made (2) select on the basis of quality/and/or cost.

AFFECTIVE OBJECTIVE #2: Upon completion of sewing project selected by child he/she will demonstrate his/her valuing of the work by publicly using the object made.

AFFECTIVE OBJECTIVE #3: Following a field trip, and associated follow-up activities, to a sewing factory each child will make at least one oral statement judged by an adult, not the teacher, to show that he/she has found either positive or negative attributes of working in a needle trades factory.

C. MATERIALS/RESOURCES:

1. Measuring devices: tape measure, yard stick, sewing gauge, skirt marker.
2. Marking aids: dress makers tracing or carbon paper, tailors chalk, chalk pencils, tracing wheel.
3. Basic sewing equipment: pin cushion, thimbles, pins, needles (hand sewing size 10 finest).
4. Cutting tools: scissors, pinking shears, seam ripper, cutting board.
5. Pressing equipment: iron, ironing board, pattern front, back, inside.
6. Power Sewing Machine
7. Teacher prepared sewing booklet, "Learning about sewing." (See Attachment #B)
8. Pattern "The Blob" (See Attachment #C)
9. Sewing factory located in or near school community
10. Community resource people e.g. sewing factory employee; a parent who sews.

D. INSTRUCTIONAL STRATEGIES

1. Strategies related to Cognitive Objective #1 and Affective Objective #1
    a. As a component of a creative dramatics experience student will role play the following situation:
        1. Show nothing to do in free time but discover sewing as an option and make something to wear the next day. Everyone gives compliments. Demonstrate how you feel.

2. Show how you can go from store to store and can't find what you want or nothing fits. You bought a blouse and the sleeve ripped out. Demonstrate how you feel.

3. Students participate as customers in a simulated store comparing differences between prices of bought items and prices of hand made items.

b. Students go to store and list price of selected items. They compare store prices to cost of hand made items.

2. Strategies related to Cognitive Objective #2

a. Students used the booklet "Learning About Sewing" (Attachment B) to learn about the function of basic sewing tools.

b. Students practiced using various sewing tools. e.g. used measuring devices to measure things in the room; used tracing wheel to trace simple pictures on cardboard 5" x 7"; experimented how materials cut with various kinds of scissors (paper scissors material scissors, or pinking shears); discussed why scissors are made for the various functions discovered; made crayon peeling pictures and use hot iron to finish pictures; and used stitches to do cardboard picture with punched holes.

c. Students used the pattern, "The Blob," (Attachment C) to learn the kinds of information located on a typical pattern e.g. Numbers of pieces, amount of material suggested kinds of material, etc.

d. To reinforce names of tools: students used gaming technique to match picture and name of tool and each one also prepared a basic sewing box.

e. Teacher demonstrated that a machine can be used for speed, while someone else hand stitched the same length of seam.

f. Students selected one from among several simple sewing projects which involved hand stitching reinforced by machine stitching.

g. The student selected project was used to facilitate practice of basic stitches e.g. running stitch, hemming stitch and hand basting; the use of patterns; and the use of the power sewing machine.

3. Strategies related to Cognitive Object #4 and Affective Objective #3.

a. A tailor, an employee in a local sewing factory, spoke to students about job conditions such as: how he first got started; what interested him; hours; salary; nature of the education and training needed; related school subjects; and future opportunities for employment.

b. Students participated in oral discussions of their perception of speakers jobs followed up by a creative writing experience. "Why I would like or dislike this job."

c. A parent who sews for home use spoke to students about: why she sews; how it helps the family. She also displayed articles of clothing made and did cost comparisons between hand made and purchased articles.

d. Students discussed and wrote comparing two resource person's jobs.

e. Students took a field trip to a sewing factory with associated pre/post field trip activities.

E. EVALUATION

1. Administration of a pre/post questionnaire (See Attachment A) an index to Affective reactions to the Unit.

2. Teacher observation of student behavior with objects produced from the unit projects, i.e. did they hide or use objects sewn.

3. Teacher judgement of students abilities to use tools appropriately as demonstrated by processes used during completion of student project.

4. Teacher record of student performance level in mathematics measurement skills prior to and following the unit.

ATTACHMENT A

PRE - POST QUESTIONNAIRE

1. What do you do on the week-ends?
   - a. To relax.
   - b. For a hobby
2. How do you feel when someone tells you they like something of yours, or something you have made?
3. Did you ever give someone a present? ________ One you made? ________ How did it make you feel? ____________
4. Did you ever wish you had something special but you didn't have the money to buy it? What did you do?
5. Did you ever buy something and it came apart? How did you feel? ____________ ____________.
6. I like sewing because ______________________________
____
____
7. I hate sewing because ______________________________
____
____
8. I would or would not like to earn my living in a sewing factory because ______________________________
____
____

ATTACHMENT B

Learning

About

Sewing

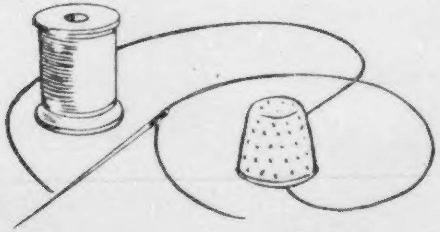
Materials and Equipment

SEWING BOX

Keep all your equipment together in a covered box. Put things away neatly. Needles should be kept in their original paper containers. Spools of thread should be wound up. Keep buttons and fasteners in a smaller box.

NEEDLES

There are many different kinds of needles, each made for a special kind of sewing. Needles for embroidery and darning have large eyes, for they must be threaded with coarse yarns or threads. For most sewing by hand, you will want a milliner's needle, size 7 or 8. Milliner's needles are longer than those ordinarily used for hand sewing. They are easy to handle.



THREAD

Sewing thread may be made of cotton, mercerized cotton, silk, linen, wool, or nylon. Each spool is marked to show what kind of thread it contains. Cotton thread is identified by a number; the higher the number, the finer the thread. For example #100 thread is very fine, while #8 thread is very coarse.

Mercerized sewing cotton is used for most hand sewing. It comes only in size #50, which is a medium thread. You can buy mercerized thread to match the color of the goods with which you are working.

Here are a few hints about thread: Always use a good brand of thread. Don't bite thread, or tear it, but snip it with scissors. When matching thread to a color sample, always get it a shade darker than the material, for it seems to look lighter when it is sewn into place.

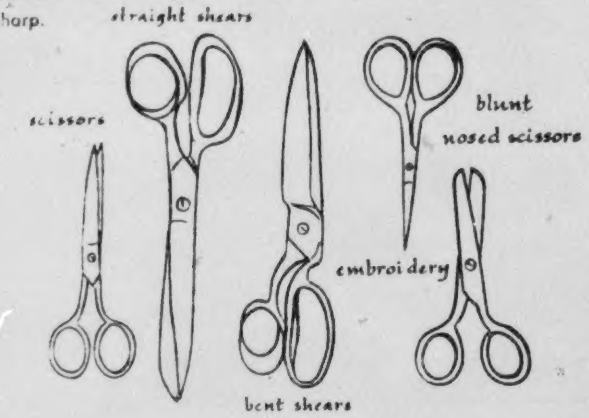
THIMBLE

Use a thimble when you sew. These are made of metal or plastic in various sizes, and are worn on the middle finger of the hand that does the stitching. This protects the finger that pushes the needle through the cloth. You can make a large thimble fit by fastening a strip of adhesive tape all around the inside.

SHEARS AND SCISSORS

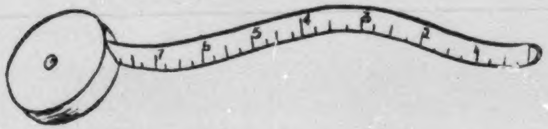
You should have a pair of small scissors for snipping thread, and a pair of shears for cutting cloth. It is easy to tell the difference between scissors and shears: Scissor handles are both alike, while shear handles are not. Shears have one small handle for your thumb, and a larger one for the other four fingers of your hand.

Shears should be used only for cutting cloth. Don't abuse them by using them for household tasks such as cutting paper and string. Dropping shears can throw the blades out of line and spoil them for cutting. Keep them sharp.



MEASURING TAPE

Once cloth is cut, the pieces cannot be put together again. *Measure everything accurately before you cut.* Use either a yardstick, a 12-inch ruler, or a measuring tape.

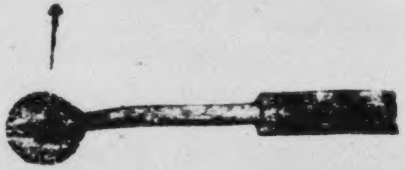


PINS

Use dressmaker's pins. They are made of brass, and will not rust. Use a pincushion; never put pins in your mouth.

MARKING AIDS

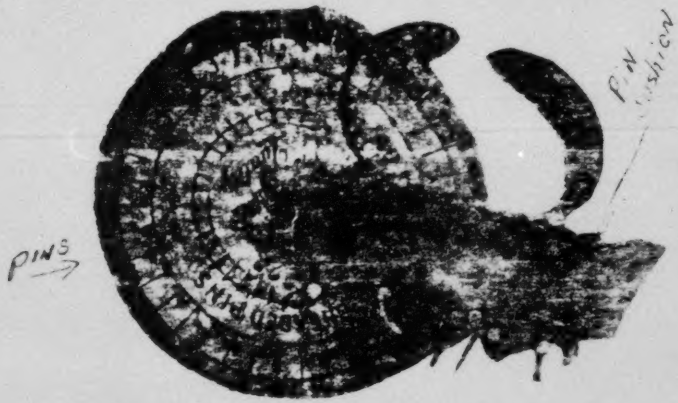
Dressmaker's tracing or carbon paper can be used to transfer pattern markings underlinings and to some fabrics.
Chalk pencils are available in white, pink and blue.
Tracing wheels having teeth or dull points are recommended for use with carbon paper



Sewing Equipment

Pins with brilliantly colored glass heads are practical to use in many cases because they are easy to see and handle

Pin cushions come in all shapes and sizes. For convenience use the type having an elastic or plastic wrist band to hold it in place on your wrist.



Pressing Equipment

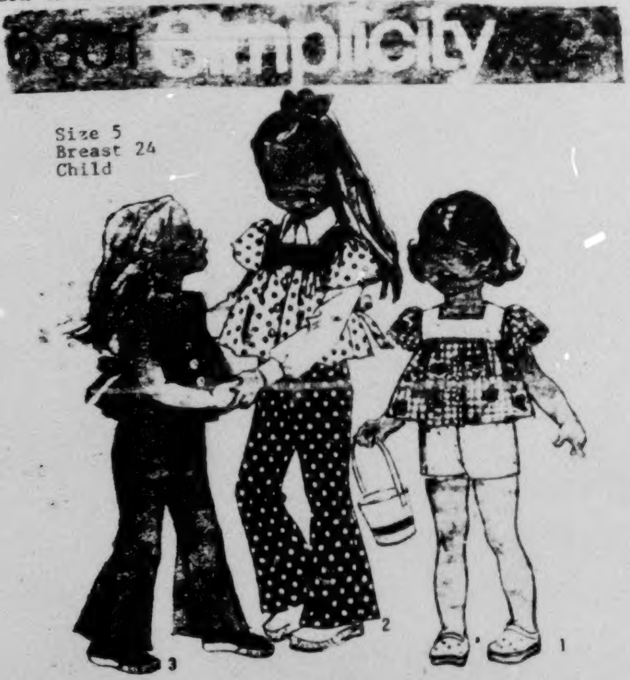
Careful pressing is essential to a perfectly finished garment. You must use these tools of a professional if you are to press like a professional.

Iron. A combination steam-dry is best. Make sure the temperature control indicates synthetic and wash-and-wear fabrics. Follow carefully its directions for use, especially how to keep the base clean and polished.

Ironing board. A board that is adjustable for various heights is preferred. It should be well padded, and the cover should be kept clean.

WHAT'S IN THE PATTERN FOR YOU?

Study the entire package carefully before you do anything else. All three elements of the package-the envelope, the Cutting and Sewing Direction Sheet and the tissue pattern pieces help to make sewing easier. The front of the pattern shows what can be made. The back of the pattern shows all of the pattern pieces to be used and also gives you ideas on what material to use and how much material you will need. The inside of the pattern is all of the pieces to what you are making.



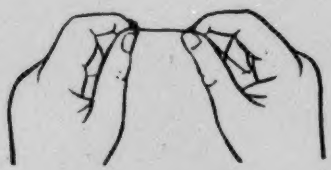
Work Stitches

THREADING A NEEDLE

Before you can do any sewing, you must thread the needle. It is easy, if you do it the right way. Unroll about 2 feet of thread, and cut it off. Pass *this end* through the eye of the needle. Holding the needle against a white surface, or against the light will help you to see the eye more clearly.

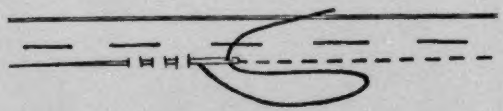
MAKING A KNOT

For some stitches, you will need a knot at the end of the thread. Hold the end of the thread you have just cut between thumb and forefinger. Wind the thread once around the tip of your forefinger, then roll your thumb and forefinger together. This will carry the thread to the end of your finger. Hold it firmly while you pull the thread with your other hand. This forms a small knot.



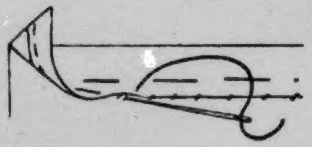
RUNNING STITCH

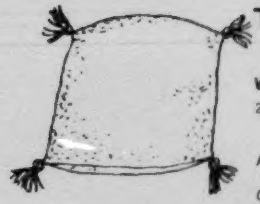
Running stitches are short stitches of equal length. Run about a half-dozen stitches on the needle, then pull it through the fabric. These are permanent stitches. Begin and end with two or three small backstitches sewn one over the other.



HEMMING

A hem is the folded edge of a piece of cloth that is sewed down. First the edge of the cloth is folded just a bit, and basted. Then it is folded again, so that the edge is hidden. All folding is done on the underside of the material. Baste near the bottom edge of the fold. Make small, slanting stitches. Catch just a few threads, then bring the needle up through the folded edge. Don't pull the thread too tight.





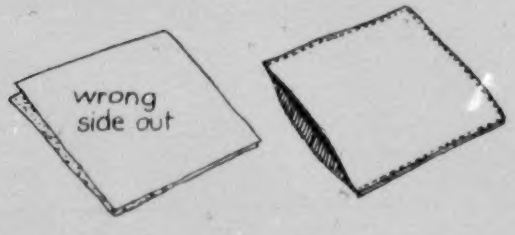
Terry-Cloth Pillow

What to Use:

2 washcloths, matching or contrasting, solid colored or patterned
About 1¾ yards of fringe, or four tassels
Old clean nylon stockings (about 12 pairs) or shredded foam stuffing
Needle, thread, scissors, tape measure

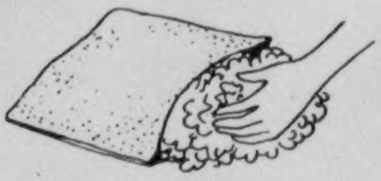
What to Do:

1. Put the two washcloths together so that the wrong sides are on the outside. Sew them together on three sides with a backstitch Turn the washcloths right side out. The side which has not been sewn together will be used as an opening through which to put the stocking filler or shredded foam stuffing



2. If you are using stockings for stuffing, cut them into small pieces. Be sure that the stockings are clean. If in doubt, wash them and let them dry before you cut them up. If you use ready-made foam stuffing, omit this step.

3. Put the cut-up stockings or the foam stuffing into the pillow case through the open side. Sew the open side with a small running stitch

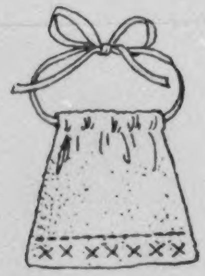


4. To decorate this pillow you can sew four tassels in the four corners of the pillow

You can also decorate it by sewing fringe all around the edges of the pillow with a small backstitch

This pillow is especially nice for a baby carriage, for it is easily laundered. It is also useful in the car, if one is traveling with small children, or after a trip to the beach when bathing suits might be wet.

Baby Bib



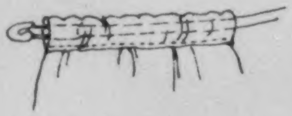
What to Use:

1 washcloth
Cotton tape or ribbon, about 20 inches long
Needle, thread, scissors, tape measure, embroidery floss, safety pin

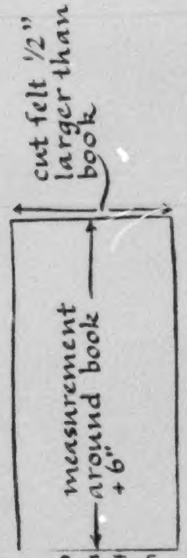
What to Do:

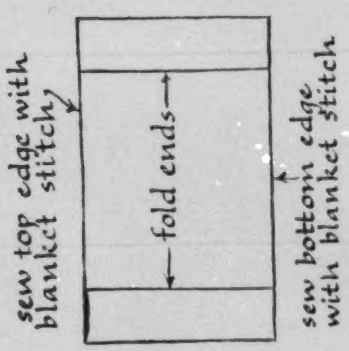
1. Make a 1-inch hem on one side of the washcloth (see Sewing Instruction 6).

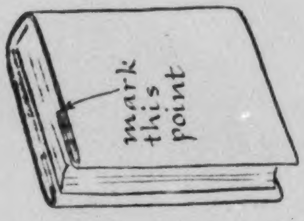
2. Attach the safety pin to one end of the tape or ribbon. Push the safety pin with the ribbon or tape through the hem. Gather the washcloth lightly when the ribbon has been pulled through. Tie the ribbon into a bow.

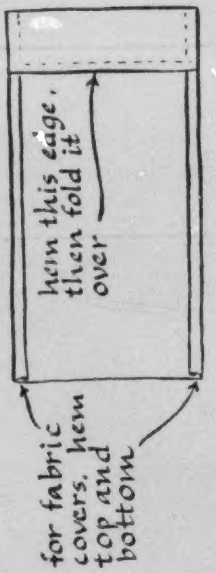


BOOK COVER


cut felt ½" larger than book
measurement around book + 6"


sew top edge with blanket stitch
fold ends
sew bottom edge with blanket stitch


mark this point


hem this edge, then fold it over
for fabric covers, hem top and bottom

Felt makes excellent book covers. You'll need a piece ½ inch wider than the height of your book, and 6 inches longer than the measurement all around the width of your book. The extra 6 inches will make a pocket at each end of the cover.

Fold the piece of felt around the book. With a piece of chalk, mark the point at which each end is folded back. Remove the felt from the book, and baste each end so that it forms a pocket.

Using a blanket stitch not more than ¼ inch high, sew along the top and bottom of the felt. Use embroidery thread or wool, in a contrasting color. You may add a felt appliqué design.

You may use other fabrics for book covers, but you'll have to hem the edges so that they do not ravel. Cut the cover material 1 inch wider, and 1 inch longer than you would if you were using felt.

Make a hem at the top and bottom of the material, so that it is now about ¼ inch larger than the book. Then, hem the ends. Fold the cloth around the book, and mark the ends. Sew the top and bottom of the end pockets, using a fine overhanding stitch.

MAKE INDIAN MOCCASINS

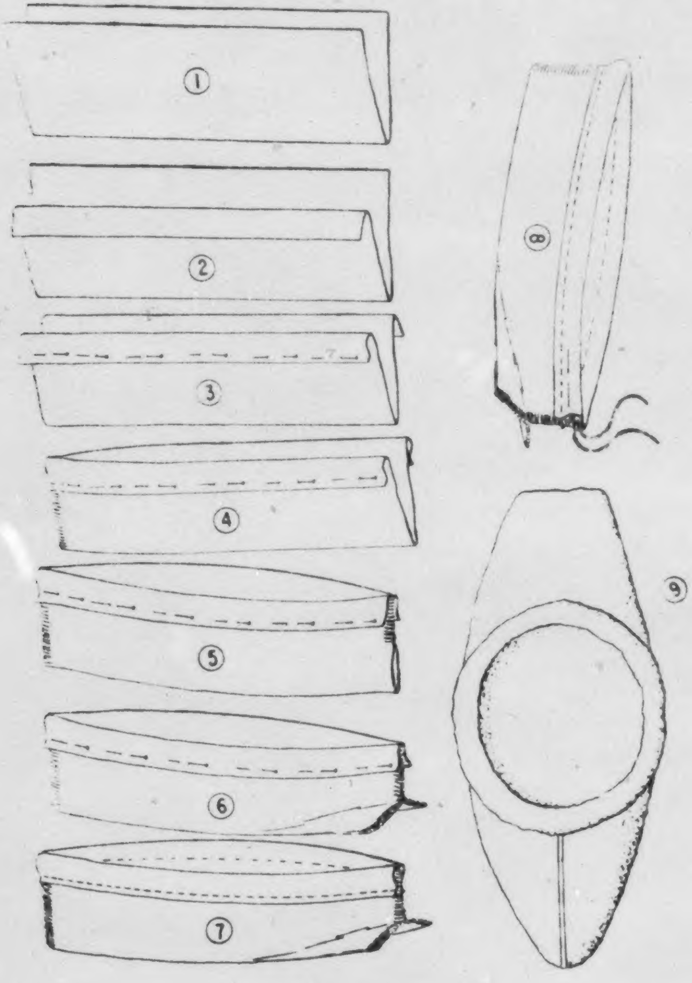
FROM TWO WASHCLOTHS

Make a pair of soft Indian moccasins for yourself . . . or for your sister, or mom. All you need is two washcloths of the same size and color, a needle, thread, a yard of elastic (pretty thin), a safety pin, some straight pins, and about half an hour. This size fits almost everyone.

You can sew these without any grown-up help if you want to, because these pictures show you how.

1. Fold the washcloth in half so that the two edges meet.
2. Fold again to make a flap on each side about 1½ inches wide.
3. Pin this flap with straight pins on each side of the washcloth, just below the edge (that edge is called the selvage) to make a tunnel.
4. Sew one end of the tunnel together, very snugly with an overcast stitch. This will be the toe.
5. Sew the other end of the tunnel shut very securely by stitching the folded edges together. *Just one third of the way down.* Leave the bottom open.
6. Now slide the bottom part with your fingers until you've folded it the other way to make an upside down "T." This will be the heel of the moccasin. Sew the heel securely together with an overcast stitch, to close the "T."
7. Now, back to the sides, remember the part we called the selvage. Find where you pinned the flap down to make a tunnel, and sew along the pins to make a long tunnel on each side of the wash cloth.
8. Now you're ready for the elastic. Pin the safety pin through the elastic and fasten it. Push the safety pin all through the tunnel, so that it drags the elastic after it, until the elastic has gone all around the slipper, and come out again. Pin both sides of the elastic together so it doesn't slide away, and try the slipper on. Be sure you take out all the straight pins first—you don't need them any more. Pull the elastic tight enough to fit your foot, then sew it together. Your moccasin is done!
9. You can add a Pom Pom to the toe if you want to—or sew beads on the border like the Indians do.

Repeat all the steps to make your second moccasin.

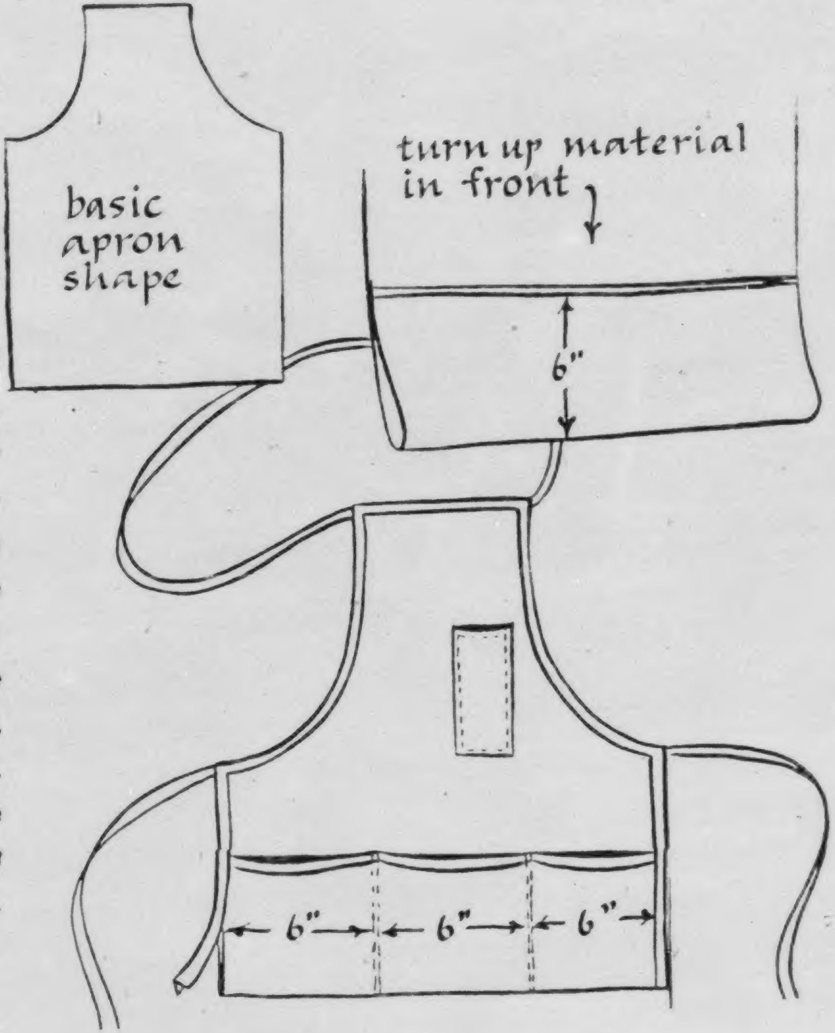


CARPENTER'S APRON

Like the clothespin apron, this should be made of strong material. Use denim, light duck or canvas, or heavy cotton goods. Cut the basic apron shape. Bind the bottom edge only, using bias tape. Fold the bottom edge up over the *front* of the apron, making a pocket 6 inches high.

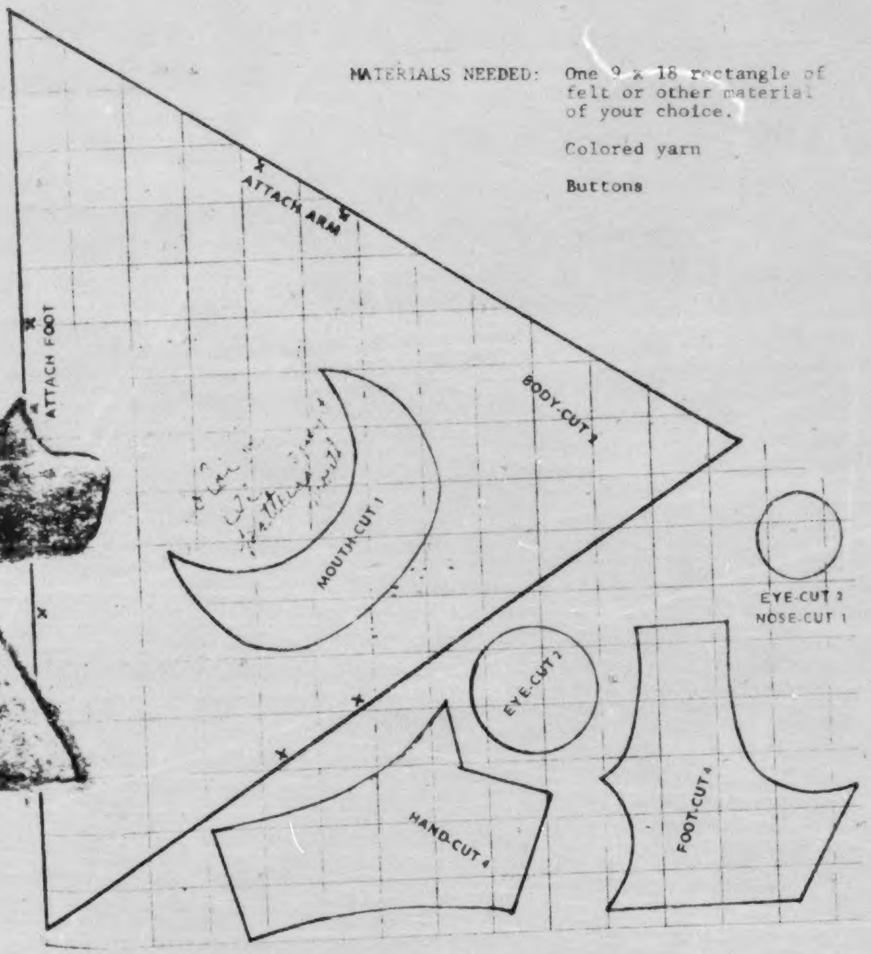
Use bias tape to bind the edges. Begin with one of the bottom corners, then go up the side, across the top, and down the other side. Do not bind the bottom. Use twill tape to make the neck and waist tapes. Make a double row of running or backstitches, dividing the long pocket into three 6-inch sections. You now have three handy pockets for nails and small tools.

Make a pencil pocket out of scrap cloth. Cut a piece 6 inches long and 3 inches wide. Fold one end down, and hem it on the wrong side, this is the top of the pocket. Fold the other three edges over about ¼ inch on the underside, and baste the pocket to the apron. Sew it firmly in place with a backstitch or a combination stitch.



BLOB DOLL

ATTACHMENT #C BLOB


ATTACH ARM
ATTACH FOOT
BODY-CUT 2
MOUTH-CUT 1
EYE-CUT 2
NOSE-CUT 1
EYE-CUT 2
HAND-CUT 4
FOOT-CUT 4

MATERIALS NEEDED: One 9 x 18 rectangle of felt or other material of your choice.

Colored yarn

Buttons

A SAMPLE CAREER EDUCATION
CURRICULUM INFUSION UNIT #0676

School: Holy Name Elementary School, Ebensburg, PA
Grade: Four
Teacher: Mr. James Demko
Curriculum Consultants: Dr. Clifford A. Baylis, Jr.
Mrs. Leona M. Sowers
USOE Career Cluster: (1500 Transportation)
Curriculum Area: Social Studies

A. TITLE: Transportation and Career Awareness

B. OBJECTIVES

1. Students will verbally define "Transportation" both orally and in written forms.

2. Students will name at least five forms of transportation presently in use as well as five from past usage.

3. Students will demonstrate an increase in awareness of jobs associated with the different types of transportation as measured by performance on the pre-post-test instrument.

4. Students will identify (oral or written) five specific jobs from the USOE Transportation Career Cluster by naming the general training requirements and related skills or duties.

C. MATERIALS/RESOURCES

1. Materials located in Career Resource Center (CRC) established in Holy Name library.

   "Transportation" Distributed by Career Education Service, Central Susquehanna Intermediate Unit, Lewisburg, Pa (CRC in Holy Name Library).

   Coronet Sound Filmstrips. "Traveling In and Out of Our City," Coronet Instructional Media (Chicago, Illinois).

   Career Discoveries. "People Who Make Things," Guidance Associates (Pleasantville, N.Y.). A subsidiary of Harcourt Brace Jovanovich, Inc. (Located in CRC at Holy Name Library).

2. Field trip to Area Vocational Technical School

3. A variety of magazines, books, filmstrips, posters, displays, field trips for individual student research.

4. Texts and Books:

   . Adams, Samuel Hopkins. The Pony Express. Spencer Press, Inc., 1950.

   . Bracken, Dorothy Kendall, King, Frederick M., and Sloan, Margaret A. Regions and Social Needs River Forest, Illinois: Laidlaw Brothers, 1968.

   . Gray, Genevieve. I Know a Bus Driver. New York: American Heritage Publishing Co., Inc., 1962.

   . Lyon, Jane D. Clipper Ships and Captains. New York: American Heritage Publishing Co., Inc., 1962.

   . Miner, Irene. The true book of Policemen and Firemen. Childrens Press, Inc., 1954.

   . Patterson, Betty. I Reached For The Sky. Chicago. Childrens Press, Inc., 1970.

   . Ross, Frank. Transportation of Tomorrow. New York: Lothrop, Lee & Shepard 60., 1968.

D. INSTRUCTIONAL STRATEGIES

1. A Pre/Post-Test was administered as a base line measure of student awareness of careers in the transportation cluster. (See Attachment #A)

2. A deductive learning process was selected therefore a definition of transportation was provided. i.e someone or something that "carries across space."

3. Students were involved both individually and in groups in the following activities.

   . made lists

   . brought in pictures

   . made a display of models

   . created a bulletin board

   . viewed several filmstrips

   . took a field trip to the area vocational technical school.

4. A series of discussion sessions was completed which included the following topics:

   Jobs involved with construction or repair

   Jobs involved with operations

   Jobs dealing with the public

5. Students used a prepared interview form to interview parents and other adults to find information about for various transportation jobs. The students reported their findings to the class. (See Attachment #B)

6. The students are divided into two sections "Past" and "Present" and are assigned various roles or areas in transportation. The child then assumed the role, did research and presented his/her findings to the class. A panel of 7 students compared and contrasted the findings.

E. EVALUATION

1. The students were given a Post-test (alternate form of the Pre-test) to see the degree of increase in their levels of awareness of transportation related jobs and ability to define transportation.

2. Performance of students in panel discussions comparing "Past" and "Present" transportation was evaluated by instructor for evidence relative to mastery of "Objective Two."

3. The primary data source relative to mastery of "Objective Four" was derived by the instructor from student oral presentations following research in CRC and completion of the interview forms.

4. Student ability to name specific jobs was evaluated by performance on the pre/post-test.

ATTACHMENT A
PRE/POST TEST

DATE ________ NAME ____________________

Name three forms of transportation 1. ____________

2. ____________________ , 3. ____________

Name ten careers in transportation.

1. ____________ 6. ____________
2. ____________ 7. ____________
3. ____________ 8. ____________
4. ____________ 9. ____________
5. ____________ 10. ____________

What is one important school subject needed in most careers in transportation? ____________

What do you think was the earliest form of transportation?

____

What do you think was the newest form of transportation?

____

Do you think you would like a career in transportation?

____ Yes ____ No

ATTACHMENT B
INTERVIEW FORM

Name of Student ________________________

Job Title ____________________________

Name of Career Expert____________________

SAMPLE QUESTIONS YOU COULD ASK THE "CAREER EXPERT"

1. What do you do? What tools do you use?
2. Do you work with people, data, or things, mostly? Do you work by yourself or with others? With whom?
3. How did you first get interested and/or started in this kind of work?
4. What are some related occupations?
5. What are the good (easy) and bad (hard) points of your job?
6. How long have you been at this job? Why do you feel this was a good job choice for you?
7. What are some of the rewards of this job? (personal, to society, financial)
8. What is the outlook of this job? (chances for advancement need for more people, union membership, working hours, working conditions, environment)
9. What changes in equipment, automation, personnel, training requirements, have you experienced in the time you have been in this field?
10. What training or education is required for this job? (High School? Trade School? College? Apprenticeship? Graduate degree?)
11. What school subjects help you the most? What else did you learn and do in school that has helped you?
12. How are you improving your job skills now? (school, books, on the job training)

A SAMPLE CAREER EDUCATION
CURRICULUM INFUSION UNIT #0776

School: Holy Name Elementary School, Ebensburg, PA
Grade: Sixth
Teacher: Sister Patricia Maria
Curriculum Consultants: Dr. Clifford A. Baylis, Jr.
Mrs. Leona M. Sowers
USOE Career Cluster: 0700 Communication and Media
Curriculum Area: Language Arts

A. TITLE: Communication Skills Cluster Unit

B. OBJECTIVES

1. Students will demonstrate their knowledge of careers in Communication by:
    - . designing learning experiences utilizing Language Arts in verbal and written communication.
    - . utilizing film to facilitate expression of ideas in oral and/or written form, e.g., original ads;
    - . identifying jobs and job related skills in the Language Arts Curriculum by role playing.
    - . utilizing journalistic approaches to develop dramatizations such as radio/TV shows, ads, articles from news paper, etc.
2. Student affective awareness of careers and job skills needed in those careers will increase as measured by responses on Career Education Evaluation form.

C. MATERIALS/RESOURCES

1. Kodak Ektasound 140 movie outfit
2. Sony video tape, T.V. monitor, monitoring equipment and switches.
3. The Area Vocation Technical School, "Audio Visual Communications Instructional area."
4. Instamatic cameras; Audio tape equipment and supplies.
5. "Careers in Communication" a film from the Career Resource Center (CRC) located in school library (Guidance Associates) (See Attachment A, Unit 0876)

6. Career Cluster booklets and summary sheets located in CRC (Central Susquenanna Intermediate Unit materials).

7. Two High School age students specializing in photography from the area Vocational Technical School as resource personnel in the classroom.

D. INSTRUCTIONAL STRATEGIES

1. A film "Careers in Communication" was viewed and followed by a discussion of the communication of ideas and various modes and mediums for getting an "idea" to a defined audience.

2. Students selected from among the following four teacher selected options to present their ideas in the form of a commercial:

- Sound-motion Pictures
- Video-tape
- Audio tape/still black and white prints
- Audio tape/still color slides

3. The following elements of message design elements were demonstrated to the total group (See Attachment B)

- attention getting devices
- verbal captioning and labelling
- eye attractors
- color
- brightness
- movement
- size
- white space
- shape
- mystery
- cultural

4. Students slected from among the four options described in strategy two above.

5. Self Selected small groups of four to six students worked to prepare a commercial using the medium selected. The tasks of these groups were: selection of a product; writing of a script; casting; and selection of props.

6. A classroom demonstration was conducted by area vocational technical school photography students to demonstrate: the basic operation of photography equipment; the composition of photographs; and the basic techniques of film processing.

7. Students wrote, proof-read and re-wrote commercial scripts.

8. A field trip to the Area Vocation Technical School audio visual communication laboratory to complete the following tasks; staging for commercials; photographing of stills, slides and sound motion pictures; processing of slides and stills; video taping of commercials; and using ancillary equipment.

9. Students discussed new knowledge and feelings associated with these experiences.

E. EVALUATION

1. The written scripts and filmed/taped presentations were utilized as the primary source of data relative to mastery of "objective one" (Part B, above)

2. For "Objective Two" (Part B, above) mastery was evaluated by student responses on the Career Education Evaluation Form. (See Attachment A)

ATTACHMENT A

CAREER EDUCATION EVALUATION FORM

Rank the following statements about the Career Education Project you just completed using the rating scale:

1 = no   2 = maybe   3 = yes

Please indicate you feelings about the following statements:

1. My overall interest in this career area has increased. 1 2 3
2. I know more about job skills because of this experience. 1 2 3
3. I know about more jobs related to this career area. 1 2 3
4. I would enjoy doing this type of work as a future career. 1 2 3
5. I better understand my abilities to do this kind of work. 1 2 3
6. This experience has helped me think about my future career. 1 2 3
7. I feel that this program was a valuable experience for me. 1 2 3

Section B

1. For me this experience has been ______________________

2. I wish that I ______________________

Baylis/Jahoda 11/18/75

ATTACHMENT B

MESSAGE DESIGN ELEMENTS*

Attention-getting devices. It is necessary to embody in visual communication a means of gaining the attention of the intended recipient of the message. In a sense, anything that is sudden, different, capsulating, or provocative draws the eyes of the observer.

Verbal captioning and labelling. One of the first places the eyes will rest is on any explanatory verbal areas of a visual presentation. We expect to obtain the "sense and essence" of the message from the caption. Disappointment results if the caption or label fails to produce the gist. Captions should be brief, and if possible, in telegraphic form. It is generally best to use only a few sizes and shapes for caption background elements and a limited number of letter styles and sizes. The caption in terms of the layout should bear a definite relationship to the total presentation.

Eye Attractors. The mechanism of vision contains several "feedback" controls which produce attention in the presence of certain elements which have their origins deep in the evolutionary background of humans when sudden movement, animal colors, and other cues might mean sudden death. The following is a partial list of visual elements that "catch the eye."

Color. The use of color is perhpas the simplest and surest means of attracting attention. The attraction level of the color is related to vision physiology. Red, for example, will attract more attention than blue if the saturation and intensity of the two hues are equal.

Brightness. Although certain colors attract more than others, it is not the color but the brightness that is really effective. Attention generally is increased by the intensity of light and color. A certain brilliance of purple, for example, can gain more attraction than a duller red.

Movement. If the eye detects displacement of an object from one position to another, or if increasing distance between two objects is perceived, attention is almost invariably produced. Apparent motion can be in certain instances even more effective because of the illusionary quality.

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*excerpted from Adams, et al. *Research, Principles, and Practices in Visual Communication.* DAVI, 1960 (pp. 111-112).

Size. Anything large relative to its surrounding, or in general, will get attention. Size, therefore, depends to a large extent on the context and general frame of reference. A six-inch spider will capture more attention than a six-foot shark. Blow-ups are frequently used to gain attention.

White space. A surrounding of white space will bring attention to any object being surrounded.

Shape. Certain shapes and forms gain more attention than others. In general, asymmetrical, irregular shapes that also have the feature of simplicity are more eye-catching than duller, symmetrical and complicated ones.

Mystery. Presenting the visual communication as an unfolding solution can be an effective attention technique. A well-known car manufacturer, for example, attempted to produce interest in a new model by displaying it covered.

Personal. The most difficult meanings to predict are those that are peculiar to an individual. These are built up through life experiences. One individual may be more sensitive to scientific material, another to artistic, etc.

Social. The group and community that one is related to frequently has its own level of sophistication, preferences and taboos. One can be sure that certain themes will be of interest to a wide variety of societies: human relations, particularly those with sexual connotations.

Cultural. The broadest framework of content interest is of cultural matters. This essentially includes the broad issues of language style, format, and frankness of expression. It is enlightening for example, to compare the NEW YORK TIMES with the LONDON TIMES.

A SAMPLE CAREER EDUCATION CURRICULUM INFUSION UNIT #0876

School: Holy Name Elementary School, Ebensburg, PA
Grade: Eight
Teacher: Sister Brenda Ann
Curriculum Consultants: Dr. Clifford A. Baylis, Jr.
Mrs. Leona M. Sowers
USOE Career Cluster: (0800 Health Careers)
Curriculum Area: Health and Science

A. TITLE: Health Care Career Education

B. OBJECTIVES

1. Students will become aware of the more than 200 Health Care related careers available today. This Awareness will be demonstrated by increased ability to Name "Health Care Careers" as evaluated by performance on pre/post test.
2. Students will gain knowledge of one particular Health Care Career by choosing one and researching it utilizing the resources in the Career Resource Center (CRC) located in the school. Evidence of mastery will come from an annotated written composition and an oral class presentation.
3. Students will come in contact with Health Care personnel for a "real, this is what's happening" dimension through: a field trip to a community hospital; "Career Workshop" experiences; and/or interviews.

C. MATERIALS/RESOURCES

1. Materials located in the Career Resource Center (CRC) (See Attachment A)
2. Community people involved in health care careers and listed in "Community Resource Career Education Personnel."
3. The Community Hospital
4. The Area Vocational Technical School
5. The Pennsylvania State School and Hospital (a mental retardation facility).

D. INSTRUCTIONAL STRATEGIES

1. Students participated in a series of workshops designed to accomplish the following tasks: operation of all equipment in the CRC; utilization of the DOT schematization to locate particular job titles and career information in CRC; familiarization with other materials in CRC.

2. Students read about Health Care Careers in "Career World".

3. Students individually chose a Health Care Career to research. Some of those choosing the same career worked together in small groups. They were responsible for finding as much information as possible concerning the chosen career in either the CRC or from other resources identified in part C above.

4. Students researching "Medical Secretary" or "Medical Assistant" took a field trip to the Area Vo-Tech and actually performed some of the training tasks typical of this laboratory area.

5. Other students used Career World publications, microfische file on careers in the U.S. and those prepared specifically for Pennsylvania (Pennscripts Care Career Index) and personal interviews as sources of information.

6. Students researching Mental Retardation took a field trip to the State School.

7. All students as a culminating activity toured a community hospital (Lee Hospital in Johnstown).

8. All students were provided with the opportunity to personally discuss with a "Career Expert" his/her career during a week long "Career Education Workshop." There were ten different health care careers represented. Additional opportunities for information gathering were provided through the "Film Festival" another component of the Career Education Workshop.

9. All students submitted a written composition on their self-selected health career. These were also presented orally to the total group. Thus, exposing the total group to indepth knowledge of more than forty different "Health Care Careers."

E. EVALUATION

1. All students were Pre/Post tested as an evaluation for mastery of "Objective One."

Students wrote a list of as many Health Care Careers as they know.

2. Both oral and written presentations on the one specific health care career selected by each student for research were examined for evidence of level of usage of CRC materials and equipment and other resources identified during the course of the instructional process, e.g. field trips, interviews and resource personnel.

3. All students were in contact with at least three real health care professionals, thus, objective three was reached.

ATTACHMENT A

PARTIAL LIST OF MATERIALS AVAILABLE THROUGH THE CAREER RESOURCE CENTER (CRC)

A. Miscellaneous Materials

- Pennscripts (microfile classified by DOT and Standard Metropolitan Statistical Area (SMSA)
- Adventures in Self Discovery Kits
- Career Desk Top Kits
- Encyclopedia of Careers
- Occupational Microfile
- Microscan Projector/viewer
- Occupational View Deck
- Subscription to the monthly publication "Career World" (Vol. 1-Vol. 4 on file) Curriculum Innovations, Inc. Highwood, Ill.

B. Sound Filmstrips

- The Adolescent Experience:
  - Shaping Identity
  - Setting Goals
  - Developing Values
- Personal Commitment:
  - Where do you Stand?
- Reflections of Myself
- Your Personality:
  - The You Others Know
- Masculinity and Feminity
- Somebody's Cheating
- The Exploited Generation
- The Changing Work Ethic
- The Paycheck Puzzle
- People Who:
  - Help Others
  - Create Art
  - Organize Facts
- A Job That Goes Someplace
- Liking Your Job and Your Life
- On the Job: Four Trainees
- Trouble at Work
- People Who:
  - Make Things
  - Work in Science
- Why Work at All?
- Jobs and Gender
- Job Hunting: Where To Begin
- Your First Week on the Job
- Choosing Your Career
- Preparing for the Jobs of the '70's
- What You Should Know Before You Go To Work
- Jobs for High School Students
- Dropping Out: A Road to Nowhere
- Jobs for You: It's Happening In Home Economics
- The Trouble with Truth
- What Do You Do About Rules?
- That's No Fair!
- A Strategy for Teaching Values
- Who Do You Think You Are?
- Guess Who's In a Group?
- What happens Between People
- You Got Mad: Are You Glad
- What do You Expect of Others?
- You Promised!
- But It Isn't Yours . . .

C. "Your Future In . . ." (A Book Series)

D. "Aim High" (A Book Series)

E. Other Books

- Young Woman's Guide to an Academic Career
- Your Future in a Changing World
- The Teenager and the Interview
- How Teenagers can Get Good Jobs
- Turn Yourself On
- The Joy Of Work

F. Instructional Pamphlets

- Admiral Peary AVTS - Research Coordinating Unit (RCU)
- Admiral Peary AVTS - RCU Posters for Activity Packets
- California Mini-Guides
- Career Cluster Posters
- Central Susquehanna Teacher Manuals & Booklets

A SAMPLE CAREER EDUCATION
CURRICULUM INFUSION UNIT #0976

School: Holy Name Elementary School, Ebensburg, PA
Grade: Eight
Teacher: Mrs. Shirley LaVanche
Curriculum Consultants: Dr. Clifford A. Baylis, Jr.
Mrs. Leona M. Sowers
USOE Career Cluster: (0300 Communication and Media)
Curriculum Area: Language Arts

A. TITLE: School Newspaper

B. OBJECTIVES

1. Student will demonstrate their understanding of the significance of a newspaper as a means of communication by: Adapting models of newspaper organization to the production of a school newspaper characterized by a variety of components simulating a "real" newspaper; selecting subject matter of general interest to the school population or audience; reporting on the selected subject matter in a journalistic style appropriate to this medium of communication; producing, advertising and marketing at least six issues in fifteen week period. Evidence of mastery will be judged by instructor examination of each of the six issues of the newspaper for evidence of the above.

2. Students will demonstrate their understanding of the processes involved in newspaper writing, production and distribution by taking more than one "job title role" from among the following typical "real" newspaper job titles; publisher, managing editor, editor, advertising manager, circulation manager, typesetter, proofreader, layout staff, photographer, press foreman or catcher.

3. Selected students will demonstrate their understanding of at least three production processes for printing a newspaper: Xerox, ditto and off-set press. Mastery will be judged by performance of students in selection of the preparation procedures for the "master copy" of the newspaper appropriate to the printing process to be utilized i.e., selection of materials (e.g. photographs), and layout products appropriate to the printing process.

C. MATERIALS/RESOURCES

1. Newspaper staff organization chart (See Attachment B)

2. Job descriptions for each "job title role," printed on index cards (See Attachment #A)

3. Instamatic camera, equipment and supplies

4. Typewriter and supplies

5. Area Vocational Technical School reproduction facilities

6. Variety of newspapers demonstrative of various styles

7. Television reporter and Camera Person from local TV Station.

8. Professional photographer from local newspaper

9. Teacher - aide (1 day per week)

10. Sample Pre/Post test (See Attachment C)

D. INSTRUCTIONAL STRATEGIES

1. Students participated in a series of readiness discussion experiences designed to: explicate a typical newspaper staff organizational chart; identify and define selected newspaper careers; develop a school newspaper organizational chart including all ten of the "job titles roles" defined on index cards; and

2. Students participated in brain-storming session to identify and list: local sources of news; interests of audience (fellow students); ideas for regular features; and school newspaper.

3. Students self-selected "job title roles" for the editorial and production staff for the first issue of the school newspaper.

4. Students participated in additional classroom "workshops" to develop skills and writing style necessary for the school newspaper. e.g. Workshop I: students analyzed local newspapers for examples of flag, masthead, front page design and placement of items; Workshop II: students critiqued previous issue of paper for literary content and style; Workshop III: students on successive staffs critiqued previous issues for what worked well and what can "we" do better.

5. Students self-selected "jobs title roles" to create a new staff for each of the six issues of the paper (The only limitation placed upon students was that they not repeat "Job title roles")

6. Students utilized the Xerox printing process for the first issue and the front pages of four of the five other issues. Issue three was printed utilizing an off-set press. Ditto was the printing process utilized for all pages, except the front pages, in four of the six issues.

7. Students specifically designed the sixth issue of the newspaper for a selected audience, the primary grade children.

E. EVALUATION

1. Anecdotal evidence of student understanding of the significance of a newspaper as a communicator was gathered, e.g.:

   - A tally of the number of papers sold by issue;
   - A record of the number of volunteers per issue;
   - A record of the variety of roles chosen per issue;
   - Observation of the traditions which developed (regular features in the paper);
   - Informal observations of the division of labor associated with "job title roles" (students were very possessive of their own roles); and
   - Observation of the unique personality of the individual staffs reflected in various issues, e.g. design of a new flag for each issue and varying emphasis on sports, news, activities or ads.

ATTACHMENT A

Publisher (Mrs. LaVanche) representing the authority to print the newspaper

Managing Editor Student in charge of assignment and of general administration (e.g. getting reports in by deadline, passed through proper channel and printed on time). The managing editor also decides which items are to be on the front page.

Co-Editors One student for news and sports, another for advertising and circulation. This division frees managing editor for administering tasks.

Typesetters For our purposes these students typed the copy for proofreading and later for printing.

Proofreaders These students checked first drafts for grammar and spelling as well as typographical errors and also checked accuracy of names in photos etc.

Layout Staff The function of this staff is the physical organization of the paper: the assignment of articles to the proper section; the spacing of articles and placement of photos; and the cutting and pasting of items for the typesetters to prepare for printing.

Photographer This student covers sporting and academic events of general interest selected for coverage in each issue. He does some work by assignment and submits some independently.

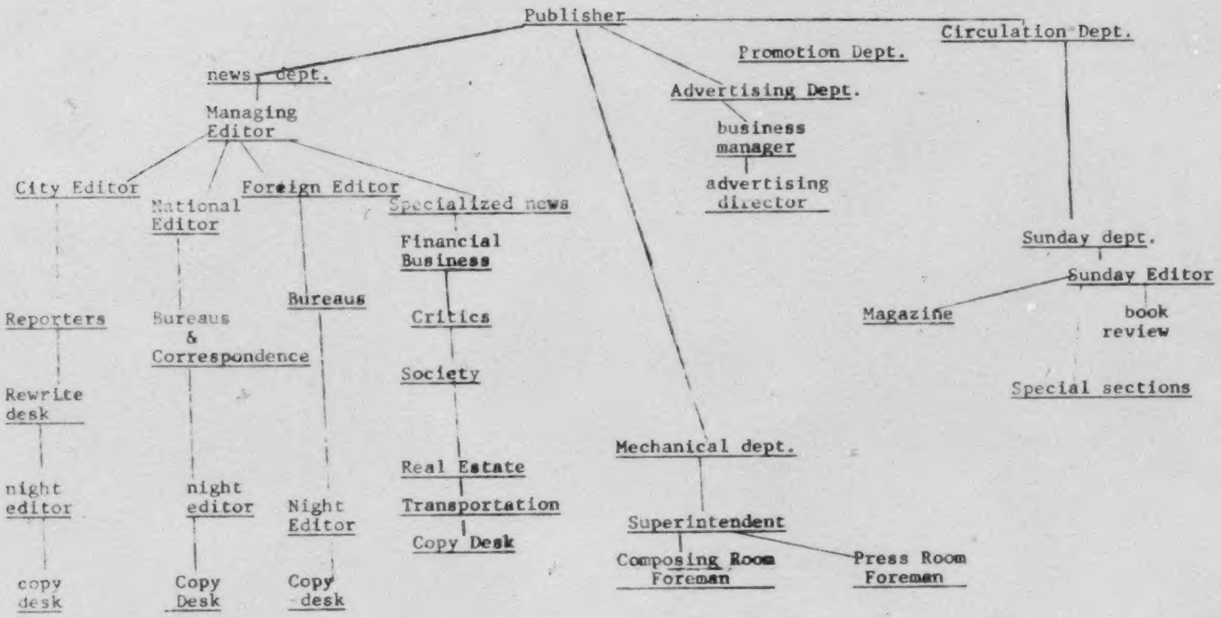
Press Forepersons These two students take charge of the printing of the paper. They learn the process than print the newspaper themselves. When finished they pass the copy to the catcher.

Catchers These students collate the paper, staple it together and bundle it in units of twenty for the circulation staff.

Circulation Staff These students sell the paper in the classroom as well as from a newsstand in the cafeteria. They also take charge of the bookkeeping involved.

ATTACHMENT B

ORGANIZATION OF THE NEWSPAPER


Publisher
news dept.
Managing Editor
City Editor
National Editor
Foreign Editor
Specialized news
Reporters
Rewrite desk
night editor
copy desk
Bureaus & Correspondence
night editor
Copy Desk
Bureaus
Night Editor
Copy desk
Financial Business
Critics
Society
Real Estate
Transportation
Copy Desk
Promotion Dept.
Advertising Dept.
business manager
advertising director
Mechanical dept.
Superintendent
Composing Room Foreman
Press Room Foreman
Circulation Dept.
Sunday dept.
Sunday Editor
Magazine
book review
Special sections

HOLY NAME HERALD STAFF

Editor

Co Editor

Reporter

Photographer

Proofreaders

Layout

Typesetter (Typist)

Press Foreman

Catcher

ATTACHMENT C

CAREER EDUCATION PRE/POST-TEST

Name ____________________ Date ______________

The following questions apply to most newspapers.

1. Circle items which are usually placed on the front page of a newspaper.
   a. baseball scores
   b. weather
   c. international news
   d. national news
   e. recipes
   f. Dear Abby
   g. comics
   h. solunar tables
   i. name of the paper
   j. births
   k. Index
   l. obituaries
2. What things are located on a Masthead?
3. What things are on the flag? (Name three)
4. Explain briefly what is on an editorial page?
5. How many columns is the Johnstown Tribune Democrat?
6. Figure the following advertisement if cost is $1.00 per column inch. Advertisement is 3 columns wide by 2 inches?

   __________________ answer
7. U.P.I. stands for __________ ________ __________?
8. A.P. stands for ______________ ______________?
9. What are the two things listed in questions 7 and 8? (Explain briefly)
10. If you have a news story about a fire, who should you talk to?

OTHER QUESTIONS

1. Income for a newspaper comes from 2 places. Name them.
   1. ____
   2. ____
2. Profit is realized of (choose one)
   a. You spend more than you make.
   b. You make more than you need for expenses.
   c. You borrow to pay your bills.
   d. You declare bankruptcy.

   Answer ____
3. If you are not making enough money to pay your bills, what should you do? Explain briefly
4. Taxes, billing, and all money matters are handled by which department?
   (a) Editorial
   (b) Layout
   (c) Pressroom
   (d) Business
5. This person does all the hiring and firing and keeps track of all employees.
   (a) Managing Editor
   (b) Sports Reporter
   (c) General Manager
   (d) Press Foreman
6. This person is the head of all Art and Advertising personnel.
   (a) Managing Editor
   (b) Associate Editor
   (c) Advertising Managing
   (d) Linotype operator
7. This person has the responsibility over all that is in paper:
   (a) Advertising Manager
   (b) Managing Editor
   (c) General Manager
   (d) News Editor
8. This person has the job of gathering and writing news.
   (a) Reporter
   (b) Ad Salesman
   (c) Publisher
   (d) Press Foreman

9. On the line at the right, tell what job or occupation you had during the past 3 weeks: for example: News Editor, proofreader, etc. ________________

Directions: Please answer the following questions honestly. These are opinion and information type questions to help the instructors.

1. Were your experiences with newspaper beneficial to you? Give your reasons.

2. What job on the school newspaper impressed you the most? Give reasons.

3. What job on the school newspaper impressed you the least? Give reasons.

4. Did you like what you did? Give reasons.

5. Would you like to make a career of newspaper work? Why or why not.

6. In the space below, tell exactly what work you did on the paper. Explain what operations you were required to perform for your job.

ATTACHMENT D

SAMPLE ISSUE OF

"THE HOLY NAME HERALD,"

THE SCHOOL NEWSPAPER

HOLY NAME HERALD 1¢

VOLUME 1 ... Issue 5 MAY 17, 1976

HAPPY GRADUATION EIGHTH GRADE

This is a poem written for Miss Meintel and Mrs. La Vanche:

A Little Poem of Hope
To Miss Meintel and Mrs. LaVanche

Remember those songs for graduation?
Remember those banners undone?
All that work for one single day,
Do you think we'll ever get done?

It's May 28, the great big day
When you'll be relieved, things are
completely done;
But to find a word on the banners misspelled,
And the music for the songs mis-sung!

But years from now, you'll be thinking
About all of those crazy tricks,
Just as a gift of memories
From the class of '76!

Beth Ann Ott

GRADUATION - CLASS OF '76

On May 28, 1976, at 9:00 the eighth grade class of Holy Name will depart from their beloved school. When they go, they will leave with many happy memories of Holy Name School.

The songs they will sing for their graduation are:
Morning Has Broken
Let It Be
All That I Am
Let There Be Peace On Earth (Instru)
Bridge Over Troubled Waters (Instru)
Alma Mater

Chris Henriques

'76 Cheerleaders with their 1st place trophy

COUNTDOWN!!!!! Graduation is near!

****

MENU

Mon.	Sloppy Joes Buttered noodles Peaches Milk
Tues.	Meat or peanut butter sandwich Corn Cake Milk
Wed.	Meat balls Mashed potatoes Peas Fruit Milk
Thurs.	Hot dog Baked beans Sauerkraut Applesauce Milk
Fri.	Fish French fries Vegetables Bread/butter Apple crisp

****

Answers statements ? Questions
! remarks !

POLL

Perry Damin and John Neideref asked the question "What was the best thing that happened to you in the Eighth Grade?" These are some of the responses they received:

Bryan Long - "Going to Kennywood."

Mike Springer - "Being able to play football and basketball."

Carl Illig - "Winning the championship in football."

Ed Monborne - "Graduating from the school and playing sports."

Gerard Sossong - "Winning the football championship."

Perry Damin - "Graduating and being able to play football."

Jack Dandrea - "Being able to play sports."

Mary Ann Golas - "The learning experience I got from the newspaper and field trips."

Juli Scanlan - "Being a cheerleader."

Amy Finn - "Graduating from Eighth Grade."

Claire Neville - "Beating St. Al's and winning the cheerleading contest."

Susie Mandes - "Winning the cheerleading contest."

Laurie Romett - "When I got to start in a basketball game."

Chris Westrick - "Being captain of the cheerleading squad."

POLL (cont.)

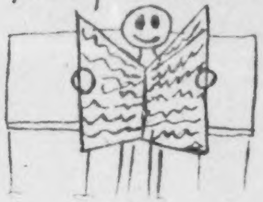
Sue Thomas - "C.S.L. discussions."

Mary Jo Kimball - "Being a Cheerleader and basketball player."

Linda Link - "Being a basketball player and cheerleader."

Stephanie Fedorka - "Working on the newspaper, at bake sales etc.

Holy Name Harry sez: 'Bye to the Bicenntenial class!'



THE HOLY NAME HERALD STAFF

Editors - Juli Peduzzi, Kevin Long
Reporters - Mark Prebish, Joyce Duman, Mike Springer, Claire Neville, Sue M Mandes, Kevin Long, Mary Jo Springer, John Neiderer, Laurie Romett, Juli Scanlan Perry Damin, Carl Illig, Linda Link, Mary Jo Kimball, JoAnn Ritchey
Photographer - Kevin Long
Proof and Layout - Shawn Ambrisco, Cheryl Kelly, Michele Brady, Chris Henriques, Linda Link, Mary Jo Kimball
Flag - Mark Prebish
Typists - Kevin Long, Brian Koenig, Susie Mandes, Laurie Romett, Ed Monborne, Chris Westrick
Sales - Mike Springer, Shawn Ambrisco, Chris Henriques

THANK YOU!!!

The staff of the Herald would like to thank all of those who supported the Herald by buying newspapers this year. We would also like to thank all of those, especially Mrs. LaVanche, Miss Meintel, and Mrs. Baylis, who helped to get the Herald off the ground. Good luck to the Herald next year.

Kevin Long (co-editor)

HEALTH SERVICES FIELD TRIP

On Wednesday, April 28th, the Eighth Grade class visited Lee Hospital in Johnstown. They went on a tour of the hospital, seeing many different people at different occupations. They saw many different kinds of complicated machinery and how it worked. We found the trip to be very interesting. We thank Sr. Brenda Ann and Miss Meintel for taking us on this trip.

WE THANK YOU!!!!

PITTSBURGH TRIP

On Saturday, May 15, 44 students went on a trip sponsored by the patrol boys to ride the Gateway Clipper.

Kevin Long & Ed Monborne

EIGHTH GRADE BIRTHDAYS

May
4 - Stephanie Fedorka, Frank Hartwig
20 - Mark Noel
22 - Mary Jo Kimball
23 GlClaire Neville
25 - Mr. Uncapher

June
4 - Perry Damin
12 - Juli Peduzzi
14 - Beth Ann Ott
16 - Ken Byrne
28 - Ed Monborne
30 - Juli Scanlan

July
10 - John Neiderer
24 - Michele Brady, Marsha Clauto

August
8 - Helene Hoover
12 [illegible]
14 - Bruce Gongloff

HAPPY BIRTHDAY GRADUATES !

Claire Neville

*** LIBRARY NEWS NOTES ***

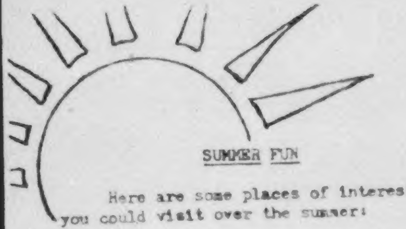
Friday, May twenty-first, is the last day for any book to go out of the library. Many new books have been put on the shelves in the last two weeks, so look them over. The library will continue to be open for the use of students and faculty for reference books and encyclopedias.

TEACHER OF THE WEEK

This week's teacher of the week is Mr. Uncapher. He lives in Ebensburg with his wife Barbara and his daughter, Kristen, who is two years old.

He is a seventh grade teacher and he likes to teach current events. His hobbies are: teaching, fishing, reading, hiking trips, nature hunts, and he likes music.

Susie Mandes

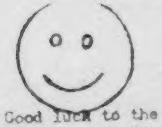


SUMMER FUN

Here are some places of interest that you could visit over the summer:

ATTRACTION	LOCATION
Horseshoe Curve	Between Gallitzin and Buckhorn east of the Cambria Co. line.
Cambria County War Memorial	Johnstown, Pa.
Prince Gallitzin Monument	Loretto, Pa.
Admiral Peary Monument	Cresson, Pa. West on Route 22
Schwab Gardens & Estate	Loretto, Pa.
~~Inclined Plane~~ Inclined Plane	Johnstown, Pa.
Lemon House	Route 22, Cresson Mt.
South Fork Dam	South Fork, Pa. Off Route 219
Graddview Cemetary	Johnstown, Pa.
Point Stadium	Johnstown, Pa.

Carl Illig



HAPPY ADS

Good luck to the eighth graders of the future - from the class of '76

Good luck next year's eighth grade
- Chris

See you guys: HA! HA! - Fritz

We would like to thank the Career Ed. helpers for coming and helping us.

Happy Birthday to MARK NOEL
- From Holy Name School

Happy Birthday Steph from Jan

Congratulations 8th grade teachers for putting up with the 8th grade students, it took a lot!

Best wishes to the Class of '76!
- Mrs. B.

Good Luck L.R. M.J.S. J.D.

Good luck to the new 8th graders.

Happy Birthday America from Sandy Kozak

Alan Baylock is glad they got a color TV

Good Luck Steph in your new home in Florida

Congratulations Vickie from Laurie.

Happy Birthday Ken Buddy from Chin Buddy

JOKES

Wife jokes -

I'm not saying that my wife is a lousy cook, but cook but when we go on a picnic we're the only ones not bothered by ants.

M My wife complained she needed a new fur coat. I hadn't realized how old her coat was until I had to replace one of the skins. The furrier told me the animal is now extinct!

My wife treats her checkbook like a best seller - she can't put it down until she's finished it.

My wife watched every football game on TV with me. The only thing she learned was the words to the "Star Spangled Banner".

- Mary Jo Springer

SPORTS BANQUET

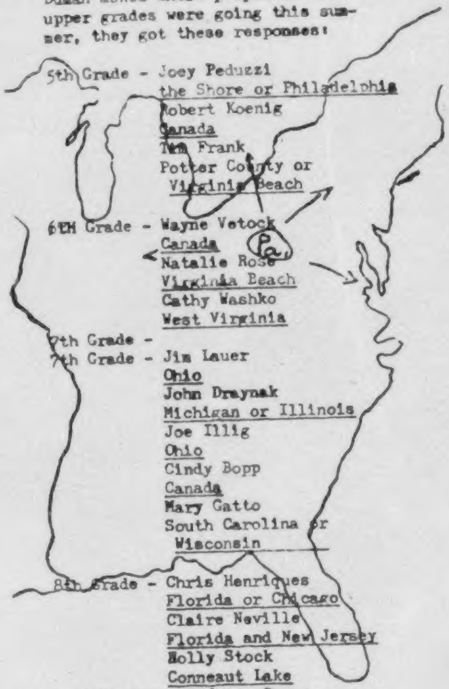
On May 6, 1976, Holy Name held its annual sports banquet, honoring the school's athletes. The main speaker was Greg Alex, a graduate of Holy Name and of Bishop Carroll. Mr. Alex also presented the awards.

We would like to thank the Athletic Association, Sister Norma, the coaches, the parents, and especially the athletes for making this banquet possible.

Kevin Long

VACATION PLANS

When Mike Springer and Joyce Duman asked where people in the upper grades were going this summer, they got these responses:



5th Grade - Joey Peduzzi
the Shore or Philadelphia
Robert Koenig
Canada
Tim Frank
Potter County or Virginia Beach

6th Grade - Wayne Vetock
Canada
Natalie Rose
Virginia Beach
Cathy Washko
West Virginia

7th Grade -
7th Grade - Jim Lauer
Ohio
John Draynak
Michigan or Illinois
Joe Illig
Ohio
Cindy Bopp
Canada
Mary Gatto
South Carolina or Wisconsin

8th Grade - Chris Henriques
Florida or Chicago
Claire Neville
Florida and New Jersey
Holly Stock
Conneaut Lake

Mike Springer & Joyce Duman

SPORTS REVIEW IN MOTION

Mrs. Clarke - 5th and 6th grade
5th grade playing variety gym
6th grade playing kickball

Mr. Uncapher - 7th and 8th grades playing kickball outside

Reporter JoAnn Ritchey also took a survey of the upper grades to determine the best liked games in gym. Here are the results of the survey:

Fifth Grade:
Paul Duman - "Variety, because you get to do everything."
Joe Peduzzi - "Variety, because you get to do everything."
Mick Sikora - "Variety, because you get to do everything."
Tim Frank - "Basketball, you get to play basketball."

Sixth Grade:
Cathleen Washko - "Dodge ball"
Eddie Lenz - "Kickball, because you get to cream the girls."
Joe Billetdeaux - "Basketball, because he and Billy Neville usually play ten girls at a time and win."
Rhonda Ambrisco - "Variety, you get to do anything."

Seventh Grade:
Billy Brady - "Soccer, get to compete with your friends and get to move around."
David Deskevich - "Soccer, because you have fun playing it."
Debbie Soisson - "Volleyball, get a chance to compete against teams."
Lou Ann Rodgers - "Volleyball, busy keeping the ball up, and fun."

Eighth Grade:
Juli Scanlan - "Playing cage ball (because she liked kicking the ball real hard and scoring.
Linda Link - "Volleyball, because it's fun to play."
Ed Monborne - "Cage ball, because it's fun to play and it's rough."
Gerard Sossong - "Cage ball, it's fun beaause everybody kills everybody else.

by: JoAnn Ritchey

NEWS OF THE FUTURE

May 17, 1996: This is Juli Peduzzi, reporter for Associated Press, returning to my old home town (or should I say city) of Ebensburg. As I walk down High Street I notice the town has lots of new buildings; and there in the center of town a medical hospital! There's a restaurant, too, and I'm famished. I go inside.

"Oops! sorry sir. Hey aren't you Ed Monborne?"

"Yeah," he replied.

"What'cha doing now? ... a truck driver, eh? Who owns this restaurant anyhow? ... Carl? not Carl Illig! He's a great master chef now. Wow! ... Well, see ya."

I sit down in a booth. A waitress comes over.

"Excuse me but I'm Juli Peduzzi and I haven't been here for a long time; what would you recommend?"

"Juli! I remember you. I'm Laurie Romett. Remember me?"

"Laurie, nice to see you again. What's the specialty?" ... "Pancakes by the world famous pancake flipper, Sue Thomas. Boy that sounds good. - Could you tell me where to find the mayor?"

"Tim Sloan," said Laurie. "Sure, over there in the corner booth."

I go over and find Tim Sloan, Mayor, speaking with businessman Kevin Long, his lawyer Jack Gendrea, and that big world tourist, John Neiderer.

"Mr. Mayor, excuse me, can I ask you a question? How do you feel about the hospital situation here?"

"Why it's great, sez Tim. "Right, Kevin?" ..."Right." "Right, Jack?" "Jack?" ..."He's always sleeping."

"Well thank you, Mr. Mayor."

Now to get to the hospital. At the front desk is Joan Nagy, head nurse. I see a list of patients and some familiar [illegible] appendicitis; Olympic athlete Mike Springer - broken toe; Bryan Long, professor - brain strain.

As I walk down the ward I see Dr. Gerard Sossong hurrying to see Bryan. And there's Stephanie Fedorka and Juli Scanlan, veterinarians, consulting with animal psychiatrist Carol Baylock. Going further I pass the laboratory and see Mary Ann Golas and physical therapist Joyce Duman speaking about a lab report.

In the children's ward Chris the Clown (Henriques) is entertaining the kids with her pet kangaroo. Also in the children's ward is pediatrician Susie Mandes and speech therapist Amy Finn.

I glance into another lab and see biologist Michele Brady working on a secret research project.

Time to leave now. I call in a report to my chief editor Shawn Ambrisco that I met a lot of old friends from school; but I could not speak to Marsha Clauto, Mark Prebish, and Mary Jo Springer because they are busy teaching school.

Walking on through town, I pass the dentist's office and see Perry Damin, drill in hand, working on a patient. Nearing the Courthouse, I spy Ken Byrne, carpenter, working on the Courthouse steeple. I step inside and find secretaries Cheryl Kelly and Holly Stock busy typing.

Across the hall trash collector Frank Hartwig is arguing with the mayor about dogs along his route.

Outside again I see mechanic Bruce Congloff fixing a trailer engine, and coming up the street barber/hair stylist Scott Miller with cosmetologist JoAnn Ritchey. Passing the local pool, I spot Mary Jo Kimball training to be a lifeguard in Florida; and there's Barry Lauer, showing Almost Anything Goes player Brian Koenig how to pluck a chicken. With them, also, is horse-trainer Helene Hoover. Passing a tall building, I look inside and see commercial artist Beth Ann Ott busy at work. There, coming out of the gym is famous boxer, Mark Noel. (cont

FUTURE NEWS (cont.)

Computer technician Claire Neville comes up the street. I say hello, but she doesn't recognize me. Well I better be going, it's getting late and I have a lot to do.

by Juli Peduzzi

??????????????????????????????????????

GUESS WHO???

I.
In Reading and English,
   This girl will help you pass.

She's a very important member
   Of the Eighth Grade class.

II.
This girl knows almost any number
   You can name.

To her, Math class is just like
   A game.

LAST WEEK'S ANSWERS

Grade 8 - Barry Lauer
Grade 7 - Thomas Nature
Grade 6 - Janet Illig
Grade 2 - Melissa Paahna

Mary Jo Kimball
Linda Link

??????????????????????????????????????

AMERICAN TAPESTRY

The student body of Holy Name put on a Bicenntenial play for the parents and the rest of the student body. At the beginning of the play the Holy Name Ensemble played a few patriotic pieces. The Ensemble was directed by Sr. Ruth, who also accompanied them on the piano. The chorus for the play consisted of students of all grades. A special song was played by 14 of the 1st grade boys, using musical instruments. Eight of the 7th grade students square danced while the 3rd grade sang "Buffalo Gals". The 3rd grade also sang other songs. The 7th grade took part in song also.

The cast and narrators were: (cast) Mr. Demko, Thomas Natcher, Dennis Simmers, William Brady, Carol Neiderer, Julianna Scanlan, Christopher Carnicella, Stephanie Scanlan, Christine Lazar, Barbara Benigni, Robert Clauto, Christopher Peduzzi, Douglas Eckenrode, Joseph Billetdeaux, Robb Long, David O'Hara, and Daniel Reed; (narrators) Kevin Long, Carol Lauer, Heath Long, Sandy Kozak, Micheline Kalinyak, John Mabry, Kathleen Mandes, Peter Knowlton, Juli Peduzzi, Barbara White, Pollyanna Lieb, Jeffrey Campbell, Carol Baylock, Melita Pearson, John Bylch, and Nancy Takacs.

The writers of the Play were: Mr. Uncapher and Miss Hertzog. Directing were Mrs. Wilson, Mrs. Johnson, Sister Brenda Ann, and Sister Mary Lewis.

We hope everyone enjoyed the Play and thank everyone who helped with it.

Juli Peduzzi

CLASS TRIP

On Wednesday, May 19, the Eighth Grade class will go to Kennywood Park in Pittsburgh, Pa. They will leave early in the morning and return about 8 p.m., so it will be a full day.

We hope everyone has a day full of fun and roller coasters!

Juli Peduzzi

SORRY - The name of Cheryl Kelly was inadvertently omitted as co-author of last week's survey article.

CLASS TRIP

The seventh grade and their teachers went on a trip to Hershey, Pa. this week. It was an eventful, chocolate-filled occasion.

They're across, up, down, backwards, and diagonal.

```
S M A R Y A N N X Q K P I E C W Z K Y N N E K M I B
H O G I B N E B D S E R D B S P A A I C L A C B A M
A L A N A I L U J V V U P I T G E C Y A H O N R B V
W A O H L N G Z G A I S K V N N M R Q S P E R P C U
N F E A N A I R Q W N T R W Q F R E R M C Y M A L O
X S D A F P N L G O F G A N A A E O A A H I J L A N
T E O W O B I N W Z E L M X P N M N R A O N D E I H
V J U K R S N A F Y L S T S B P R I T L R A C G R Q
F P O I N F O R L G E W Q U A R S T C N P R S Q E C
A D A D A N U Y P S H B C M I W K T O E T E O L T R
E M O T P K Q J Y E C L Y D E S V D Z K Q Y P M I T
M R S O M L W O I S I Z O L T U J Z D E C M R L E L
K B W M Z E K S W U M R S M M E Q Y I H D A B A H S
J C A Y A H N I Y V T P N K N P E L R G F O J I Z Y
H T E B M N E E I N A H P E T S H L T F E I L H X P
I K C D A W J T V B Z S U L A W L O L W I M E N W E
Q N I D E X O F Q R W U E T M P O H L Y N A Y R B S
P Q F R R L B E J U L I D L H N D Y D A O N Y U L D
R A U R P A N T Y C U O V T H K R B W I Z N A U M R
Y O T S A E R Y N E I X Q O C E N C F D T W T O N Q
T I H V Y N M E D S M I J X H S W E I R U A L T J H
Z J F S V Q K K G A T L S C H T B W X R S Q O E G Z
C K P J I T Z I W M Y A T N E E F A Y K E T P F J I
W A Q A T R Y P A D N I L E N M L U Q D O C K I H J
C T R S N J H B Z Y U T TKKNNTTUUEETTQQCCJJYIXXWWAA
P U Q O P M F C G F W U H O K T T K S R B T Y O U F
B R Y Z L N G B T X S A J P I O A I J N I S L R J L
G A B J E I S U S N M B F H E C O M S T D C P Q A G
H X A C G J O T U X Z B O U R S L Q N E T R H C E M
```

Carol
Michele
Marsha
Joyce
Stephanie
Amy
Mary Ann
Chris H.
Helene
Cheryl
Mary Jo K.
Linda
Susie
Claire
Beth
Juli
JoAnn
Laurie
Juliana
Mary Jo S.
Holly
Sue
Chris W.
Joan
Shawn
Kenny
Perry
Jack
Bruce

Frank
Carl
Brian
Barry
Bryan
Kevin
Scott
Ed
John
Mark N.
Mark P.
Tim
Gerard
Mike

By:

AMY FINN

SIXTH GRADE BUSY

On Friday May 7, 1976, twenty three students of 6-12 took a trip to the A Admiral Peary Vo-Tech. They were shown how to develop pictures, make commercials, on closed circuit TV, make slides, and they learned some general principles of photography. We interviewed a few of the students and asked them what they liked best about their trip.

Paul Peduzzi said, "I liked taking and developing pictures."

Sean Kelly said, "I liked working with the chemicals and developing pictures."

SIXTH GRADE (cont.)

Wayne Vetock said, "I liked working the machines."

Mary Gabany said, "I liked developing pictures in the dark room."

Michael Felix said, "I liked the whole thing."

Some photos of their trip may be seen on the wall by Sr. Patricia Maria's door.

Also, on May 26 the Sixth graders will all be going on a trip to Lakemont Park.

Kevin Long & Ed Monborne

Sight Reading

1) Can you read the following:

XUR, XUB;
X, 2X, UR2 me.

2) Birth month, Day, and AGE Formula

write down the day and number of your birth.

Example-(May 17) or 5/17 — 517
multiply by 2, — x 2 = 1034
add 5, — + 5 = 1039
multiply by 50, — x 50 = 51950
add your age, — + 14 = 51964
add 365, — + 365 = 52329
Subtract 615 — - 615 = 51714

First number indicates, the month, the next two is the day, and the last Two are your age.

Easy Peanut Butter Frosting

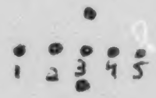
1/8 C Peanut Butter
1/2 C Powdered Sugar
2 T milk
1/4 t vanilla

1) Blend 1/3 of sugar & P.B.
2) Alternately add remaining sugar and milk
3) Add vanilla

Double this recipe for 2 layer cake

SEVEN COINS

Lay out 7 coins as per the arrangement of the dots below. Move two of them in such a way as to leave five coins in a row either vertically or horizontally.



Joan Nagy

A SAMPLE CAREER EDUCATION
CURRICULUM INFUSION UNIT #1076

School: Holy Name Elementary School, Ebensburg, Pa.
Grade: Eight
Teacher: Miss Joan Meintel
Curriculum Consultants: Dr. Clifford A. Baylis, Jr
Mrs. Leona M. Sowers
USOE Career Cluster: 0200 Business and Office
Curriculum Area: Mathematics

A. TITLE: An Individualized Self-instructional Learning Station Activity in Data Calculation and Recording

B. OBJECTIVES

1. Using an electronic calculator, appropriate tables, charts and procedure card, students will complete a weekly payroll, total all of the columns on the payroll, and then complete and reconcile a quarterly report on appropriate self-correcting answer sheets provided by the instructor following completion of the experience.

2. Following completion of the calculation process students will verbalize affective reactions to this experience on the "Career Exploration Rating Form".

C. MATERIALS/RESOURCES

1. Selected Components of the "Singer Vocational Evaluation System, Data Calculation and Recording. Carrel #17 (See Attachments)

   - Procedure Card. (Attachment A)
   - Payrole Exemption Tables (Attachments B-1, B-2, B-3, B-4)
   - Week Payroll Form (Attachments C-1, C-2)
   - Quarterly Report Form. (Attachment D)

2. An electronic printing calculator with memory functions.

3. Pocket calculators (only if small groups are to work in the learning stations).

D. INSTRUCTIONAL STRATEGIES

1. Students used electronic calculator to compute the total number of hours, regular hours and overtime hours, on the "weekly payroll form" (attachment C)

   The purpose of this activity was to provide practice in the use of the particular calculator being used.

3. When all line calculations were completed the student totaled all columns on the Weekly Payroll Form.

4. The students completed the "Quarterly Report" (Attachment D" by calculation of: net wages for twenty-three employees, gross pay averages for the quarter, and net pay averages for the quarter.

5. When all ledger sheets were completed the student requested self-correcting answer sheets from the instructor.

6. Student and instructor trace and reconcile all errors until total mastery is achieved.

E. EVALUATION

1. Student with the assistance of the instructor, will use self-correcting answer sheet until total mastery of Objective One is achieved.

2. Students will indicate affective reactions to this experience on the "Career Exploration Rating Form" (See Attachment E).

ATTACHMENTS FOR UNIT #1076

ATTACHMENT A - Procedure Card*
B1 - Payroll Exemption tables Single Person
B2 - Payroll Exemption tables Single Person
B3 - Payroll Exemption tables Married Person
B4 - Payroll Exemption tables Married Person
C1 - Weekly Payroll Form
C2 - Weekly Payroll Form
D - Quarterly Report Form
E - Career Exploration Form

* This is provided as a sample of a procedure card used with Singer Equipment. Procedure card will need to be varied according to particular calculator.

ATTACHMENT A
#1076

SINGER
VOCATIONAL EVALUATION SYSTEM

Data Calculation & Recording
Procedure Card

1. Touch – Total Key *
2. Enter – Regular Hours
3. Touch – Multiplication Key ×
4. Enter – Rate
5. Touch – Plus/Equals Key +=
6. Record – Regular Wages
7. Enter – 1.5
8. Touch – Multiplication Key ×
9. Enter – Rate
10. Touch – Plus/Equals Key +=
11. Touch – Multiplication Key ×
12. Enter – Overtime Hours
13. Touch – Plus/Equals Key +=
14. Touch – Plus/Equals Key +=
15. Record – Overtime Wages
16. Enter – Regular Wages
17. Touch – Plus/Equals Key +=
18. Touch – Total Key *
19. Record – Total Wages
20. Touch – Constant Key (Down) K
21. Touch – Multiplication Key ×
22. Enter – .0585
23. Touch – Plus/Equals Key +=
24. Record – F.I.C.A.
25. Enter – 6
26. Touch – Percent Key %
27. Record – Local Tax Withhold.
28. Touch – Minus/Equals Key −=
29. Touch – Plus/Equals Key +=
30. Enter – F.I.C.A.
31. Touch – Minus/Equals Key −=
32. Enter – Health Insurance
33. Touch – Minus/Equals Key −=
34. Record – Federal Withhold.
35. Enter – Federal Withhold.
36. Touch – Minus/Equals Key −=
37. Touch – Total Key *
38. Record – Total Net Pay
39. Touch – Constant Key (Up) K

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ATTACHMENT B #1076

SINGLE Persons — WEEKLY Payroll Period

And the wages are—		And the number of withholding allowances claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
		The amount of income tax to be withheld shall be—										
$0	$11	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	12	.10	0	0	0	0	0	0	0	0	0	0
12	13	.30	0	0	0	0	0	0	0	0	0	0
13	14	.40	0	0	0	0	0	0	0	0	0	0
14	15	.50	0	0	0	0	0	0	0	0	0	0
15	16	.70	0	0	0	0	0	0	0	0	0	0
16	17	.80	0	0	0	0	0	0	0	0	0	0
17	18	1.00	0	0	0	0	0	0	0	0	0	0
18	19	1.10	0	0	0	0	0	0	0	0	0	0
19	20	1.20	0	0	0	0	0	0	0	0	0	0
20	21	1.40	0	0	0	0	0	0	0	0	0	0
21	22	1.50	0	0	0	0	0	0	0	0	0	0
22	23	1.70	0	0	0	0	0	0	0	0	0	0
23	24	1.80	0	0	0	0	0	0	0	0	0	0
24	25	1.90	0	0	0	0	0	0	0	0	0	0
25	26	2.10	.10	0	0	0	0	0	0	0	0	0
26	27	2.20	.20	0	0	0	0	0	0	0	0	0
27	28	2.40	.40	0	0	0	0	0	0	0	0	0
28	29	2.50	.50	0	0	0	0	0	0	0	0	0
29	30	2.60	.60	0	0	0	0	0	0	0	0	0
30	31	2.80	.80	0	0	0	0	0	0	0	0	0
31	32	2.90	.90	0	0	0	0	0	0	0	0	0
32	33	3.10	1.10	0	0	0	0	0	0	0	0	0
33	34	3.20	1.20	0	0	0	0	0	0	0	0	0
34	35	3.30	1.30	0	0	0	0	0	0	0	0	0
35	36	3.50	1.50	0	0	0	0	0	0	0	0	0
36	37	3.70	1.60	0	0	0	0	0	0	0	0	0
37	38	3.90	1.80	0	0	0	0	0	0	0	0	0
38	39	4.10	1.90	0	0	0	0	0	0	0	0	0
39	40	4.20	2.00	0	0	0	0	0	0	0	0	0
40	41	4.40	2.20	.20	0	0	0	0	0	0	0	0
41	42	4.60	2.30	.30	0	0	0	0	0	0	0	0
42	43	4.80	2.50	.40	0	0	0	0	0	0	0	0
43	44	5.00	2.60	.60	0	0	0	0	0	0	0	0
44	45	5.10	2.70	.70	0	0	0	0	0	0	0	0
45	46	5.30	2.90	.90	0	0	0	0	0	0	0	0
46	47	5.50	3.00	1.00	0	0	0	0	0	0	0	0
47	48	5.70	3.20	1.10	0	0	0	0	0	0	0	0
48	49	5.90	3.30	1.30	0	0	0	0	0	0	0	0
49	50	6.00	3.40	1.40	0	0	0	0	0	0	0	0
50	51	6.20	3.60	1.50	0	0	0	0	0	0	0	0
51	52	6.40	3.80	1.70	0	0	0	0	0	0	0	0
52	53	6.60	4.00	1.80	0	0	0	0	0	0	0	0
53	54	6.80	4.20	2.00	0	0	0	0	0	0	0	0
54	55	6.90	4.30	2.10	.10	0	0	0	0	0	0	0
55	56	7.10	4.50	2.30	.20	0	0	0	0	0	0	0
56	57	7.30	4.70	2.40	.40	0	0	0	0	0	0	0
57	58	7.50	4.90	2.50	.50	0	0	0	0	0	0	0
58	59	7.70	5.10	2.70	.70	0	0	0	0	0	0	0
59	60	7.80	5.20	2.80	.80	0	0	0	0	0	0	0
60	62	8.10	5.50	3.00	1.00	0	0	0	0	0	0	0
62	64	8.50	5.90	3.30	1.30	0	0	0	0	0	0	0
64	66	8.80	6.20	3.60	1.60	0	0	0	0	0	0	0
66	68	9.20	6.60	4.00	1.80	0	0	0	0	0	0	0
68	70	9.60	7.00	4.40	2.10	.10	0	0	0	0	0	0
70	72	9.90	7.30	4.70	2.40	.40	0	0	0	0	0	0
72	74	10.30	7.70	5.10	2.70	.70	0	0	0	0	0	0
74	76	10.70	8.00	5.40	3.00	.90	0	0	0	0	0	0
76	78	11.10	8.40	5.80	3.20	1.20	0	0	0	0	0	0
78	80	11.50	8.80	6.20	3.60	1.50	0	0	0	0	0	0

(Continued on next page)

ATTACHMENT B2 #1076

SINGLE Persons — WEEKLY Payroll Period

And the wages are—		And the number of withholding allowances claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
		The amount of income tax to be withheld shall be—										
$80	$82	$12.00	$9.10	$6.50	$3.90	$1.80	$0	$0	$0	$0	$0	$0
82	84	12.40	9.50	6.90	4.30	2.10	0	0	0	0	0	0
84	86	12.80	9.80	7.20	4.60	2.30	.30	0	0	0	0	0
86	88	13.20	10.20	7.60	5.00	2.60	.60	0	0	0	0	0
88	90	13.60	10.60	8.00	5.40	2.90	.90	0	0	0	0	0
90	92	14.10	11.00	8.30	5.70	3.20	1.20	0	0	0	0	0
92	94	14.50	11.40	8.70	6.10	3.50	1.40	0	0	0	0	0
94	96	14.90	11.90	9.00	6.40	3.90	1.70	0	0	0	0	0
96	98	15.30	12.30	9.40	6.80	4.20	2.00	0	0	0	0	0
98	100	15.70	12.70	9.80	7.20	4.60	2.30	.30	0	0	0	0
100	105	16.50	13.40	10.40	7.80	5.20	2.80	.80	0	0	0	0
105	110	17.50	14.50	11.50	8.70	6.10	3.50	1.50	0	0	0	0
110	115	18.60	15.50	12.50	9.50	7.00	4.40	2.20	.10	0	0	0
115	120	19.60	16.60	13.60	10.50	7.90	5.30	2.90	.80	0	0	0
120	125	20.70	17.60	14.60	11.60	8.80	6.20	3.60	1.50	0	0	0
125	130	21.70	18.70	15.70	12.60	9.70	7.10	4.50	2.20	.20	0	0
130	135	22.80	19.70	16.70	13.70	10.70	8.00	5.40	2.90	.90	0	0
135	140	23.80	20.80	17.80	14.70	11.70	8.90	6.30	3.70	1.80	0	0
140	145	24.90	21.80	18.80	15.80	12.80	9.80	7.20	4.60	2.30	.30	0
145	150	25.90	22.90	19.90	16.80	13.80	10.80	8.10	5.50	3.00	1.00	0
150	160	27.50	24.50	21.40	18.40	15.40	12.30	9.50	6.90	4.30	2.00	0
160	170	29.60	26.60	23.50	20.50	17.50	14.40	11.40	8.70	6.10	3.50	1.40
170	180	31.70	28.70	25.60	22.60	19.00	16.50	13.50	10.50	7.90	5.30	2.80
180	190	33.80	30.80	27.70	24.70	21.70	18.60	15.60	12.60	9.70	7.10	4.50
190	200	35.90	32.90	29.80	26.80	23.80	20.70	17.70	14.70	11.70	8.90	6.30
200	210	38.10	35.00	31.90	28.90	25.90	22.80	19.80	16.80	13.80	10.70	8.10
210	220	40.40	37.10	34.00	31.00	28.00	24.90	21.90	18.90	15.90	12.80	9.90
220	230	42.70	39.30	36.10	33.10	30.10	27.00	24.00	21.00	18.00	14.90	11.90
230	240	45.10	41.60	38.30	35.20	32.20	29.10	26.10	23.10	20.10	17.00	14.00
240	250	47.80	43.90	40.60	37.30	34.30	31.20	28.20	25.20	22.20	19.10	16.10
250	260	50.50	46.60	42.90	39.60	36.40	33.30	30.30	27.30	24.30	21.20	18.20
260	270	53.20	49.30	45.40	41.90	38.60	35.40	32.40	29.40	26.40	23.30	20.30
270	280	56.20	52.00	48.10	44.20	40.90	37.60	34.50	31.50	28.50	25.40	22.40
280	290	59.30	54.80	50.80	46.90	43.20	39.90	36.60	33.60	30.60	27.50	24.50
290	300	62.40	57.90	53.50	49.60	45.70	42.20	38.90	35.70	32.70	29.60	26.60
300	310	65.50	61.00	56.50	52.30	48.40	44.60	41.20	37.80	34.80	31.70	28.70
310	320	68.60	64.10	59.60	55.10	51.10	47.30	43.50	40.10	36.90	33.80	30.80
320	330	71.70	67.20	62.70	58.20	53.80	50.00	46.10	42.40	39.10	35.90	32.90
330	340	74.80	70.30	65.80	61.30	56.90	52.70	48.80	44.90	41.40	38.10	35.00
340	350	78.30	73.40	68.90	64.40	60.00	55.50	51.50	47.80	43.70	40.40	37.10
350	360	81.80	76.80	72.00	67.50	63.10	58.60	54.20	50.30	46.40	42.70	39.40
360	370	85.30	80.30	75.30	70.60	66.20	61.70	57.20	53.00	49.10	45.20	41.70
370	380	88.80	83.80	78.80	73.70	69.30	64.80	60.30	55.90	51.80	47.90	44.00
380	390	92.30	87.30	82.30	77.20	72.40	67.90	63.40	59.00	54.50	50.60	46.70
390	400	95.80	90.80	85.80	80.70	75.70	71.00	66.50	62.10	57.60	53.30	49.40
400	410	99.30	94.30	89.30	84.20	79.20	74.10	69.60	65.20	60.70	56.20	52.10
410	420	102.80	97.80	92.80	87.70	82.70	77.60	72.70	68.30	63.80	59.30	54.80
420	430	106.30	101.30	96.30	91.20	86.20	81.10	76.10	71.40	66.90	62.40	57.90
430	440	109.80	104.80	99.80	94.70	89.70	84.60	79.60	74.50	70.00	65.50	61.00
440	450	113.30	108.30	103.30	98.20	93.20	88.10	83.10	78.00	73.10	68.60	64.10
450	460	116.80	111.80	106.80	101.70	96.70	91.60	86.60	81.50	76.50	71.70	67.20
460	470	120.30	115.30	110.30	105.20	100.20	95.10	90.10	85.00	80.00	74.90	70.30
470	480	123.80	118.80	113.80	108.70	103.70	98.60	93.60	88.50	83.50	78.40	73.40
480	490	127.30	122.30	117.30	112.20	107.20	102.10	97.10	92.00	87.00	81.90	76.90
		[illegible] percent of the excess over $490 plus—										
$490 and over		129.10	124.00	119.00	114.00	108.90	103.90	98.80	93.80	88.70	83.70	78.60

MARRIED Persons — WEEKLY Payroll Period

And the wages are—		And the number of withholding allowances claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
		The amount of income tax to be withheld shall be—										
$0	$11	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	12	10	0	0	0	0	0	0	0	0	0	0
12	13	30	0	0	0	0	0	0	0	0	0	0
13	14	40	0	0	0	0	0	0	0	0	0	0
14	15	50	0	0	0	0	0	0	0	0	0	0
15	16	70	0	0	0	0	0	0	0	0	0	0
16	17	80	0	0	0	0	0	0	0	0	0	0
17	18	1.00	0	0	0	0	0	0	0	0	0	0
18	19	1.10	0	0	0	0	0	0	0	0	0	0
19	20	1.20	0	0	0	0	0	0	0	0	0	0
20	21	1.40	0	0	0	0	0	0	0	0	0	0
21	22	1.50	0	0	0	0	0	0	0	0	0	0
22	23	1.70	0	0	0	0	0	0	0	0	0	0
23	24	1.80	0	0	0	0	0	0	0	0	0	0
24	25	1.90	0	0	0	0	0	0	0	0	0	0
25	26	2.10	10	0	0	0	0	0	0	0	0	0
26	27	2.20	20	0	0	0	0	0	0	0	0	0
27	28	2.40	40	0	0	0	0	0	0	0	0	0
28	29	2.50	50	0	0	0	0	0	0	0	0	0
29	30	2.60	60	0	0	0	0	0	0	0	0	0
30	31	2.80	80	0	0	0	0	0	0	0	0	0
31	32	2.90	90	0	0	0	0	0	0	0	0	0
32	33	3.10	1.10	0	0	0	0	0	0	0	0	0
33	34	3.20	1.20	0	0	0	0	0	0	0	0	0
34	35	3.30	1.30	0	0	0	0	0	0	0	0	0
35	36	3.50	1.50	0	0	0	0	0	0	0	0	0
36	37	3.60	1.60	0	0	0	0	0	0	0	0	0
37	38	3.80	1.80	0	0	0	0	0	0	0	0	0
38	39	3.90	1.90	0	0	0	0	0	0	0	0	0
39	40	4.10	2.00	0	0	0	0	0	0	0	0	0
40	41	4.20	2.20	20	0	0	0	0	0	0	0	0
41	42	4.40	2.30	30	0	0	0	0	0	0	0	0
42	43	4.50	2.50	40	0	0	0	0	0	0	0	0
43	44	4.70	2.60	60	0	0	0	0	0	0	0	0
44	45	4.90	2.70	70	0	0	0	0	0	0	0	0
45	46	5.00	2.80	90	0	0	0	0	0	0	0	0
46	47	5.20	3.00	1.00	0	0	0	0	0	0	0	0
47	48	5.30	3.20	1.10	0	0	0	0	0	0	0	0
48	49	5.50	3.30	1.30	0	0	0	0	0	0	0	0
49	50	5.70	3.40	1.40	0	0	0	0	0	0	0	0
50	51	5.80	3.60	1.60	0	0	0	0	0	0	0	0
51	52	6.00	3.70	1.70	0	0	0	0	0	0	0	0
52	53	6.10	3.90	1.80	0	0	0	0	0	0	0	0
53	54	6.30	4.00	2.00	0	0	0	0	0	0	0	0
54	55	6.50	4.10	2.10	10	0	0	0	0	0	0	0
55	56	6.60	4.30	2.30	20	0	0	0	0	0	0	0
56	57	6.80	4.50	2.40	40	0	0	0	0	0	0	0
57	58	6.90	4.60	2.50	50	0	0	0	0	0	0	0
58	59	7.10	4.80	2.70	70	0	0	0	0	0	0	0
59	60	7.30	4.90	2.80	80	0	0	0	0	0	0	0
60	62	7.50	5.20	3.00	1.00	0	0	0	0	0	0	0
62	64	7.80	5.50	3.30	1.30	0	0	0	0	0	0	0
64	66	8.10	5.80	3.60	1.60	0	0	0	0	0	0	0
66	68	8.50	6.10	3.90	1.80	0	0	0	0	0	0	0
68	70	8.80	6.50	4.20	2.10	10	0	0	0	0	0	0
70	72	9.10	6.80	4.50	2.40	40	0	0	0	0	0	0
72	74	9.40	7.10	4.80	2.70	70	0	0	0	0	0	0
74	76	9.70	7.40	5.10	3.00	90	0	0	0	0	0	0
76	78	10.10	7.70	5.40	3.20	1.20	0	0	0	0	0	0
78	80	10.40	8.10	5.80	3.50	1.50	0	0	0	0	0	0
80	82	10.70	8.40	6.10	3.80	1.80	0	0	0	0	0	0
82	84	11.00	8.70	6.40	4.10	2.10	0	0	0	0	0	0
84	86	11.30	9.00	6.70	4.40	2.30	30	0	0	0	0	0
86	88	11.70	9.30	7.00	4.70	2.60	60	0	0	0	0	0
88	90	12.00	9.70	7.40	5.00	2.90	90	0	0	0	0	0
90	92	12.30	10.00	7.70	5.40	3.20	1.20	0	0	0	0	0
92	94	12.60	10.30	8.00	5.70	3.50	1.40	0	0	0	0	0
94	96	12.90	10.60	8.30	6.00	3.70	1.70	0	0	0	0	0
96	98	13.30	10.90	8.60	6.30	4.00	2.00	0	0	0	0	0
98	100	13.60	11.30	9.00	6.60	4.30	2.30	30	0	0	0	0

(Continued on next page)

MARRIED Persons — WEEKLY Payroll Period

And the wages are—		And the number of withholding allowances claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
		The amount of income tax to be withheld shall be—										
$100	$105	$14.10	$11.80	$9.50	$7.20	$4.90	$2.80	$.80	$0	$0	$0	$0
105	110	14.90	12.60	10.30	8.00	5.70	3.50	1.50	0	0	0	0
110	115	15.70	13.40	11.10	8.80	6.50	4.20	2.20	10	0	0	0
115	120	16.50	14.20	11.90	9.60	7.30	5.00	2.90	80	0	0	0
120	125	17.30	15.00	12.70	10.40	8.10	5.80	3.60	1.50	0	0	0
125	130	18.10	15.80	13.50	11.20	8.90	6.60	4.30	2.20	20	0	0
130	135	18.90	16.60	14.30	12.00	9.70	7.40	5.10	2.90	90	0	0
135	140	19.70	17.40	15.10	12.80	10.50	8.20	5.90	3.60	1.60	0	0
140	145	20.50	18.20	15.90	13.60	11.30	9.00	6.70	4.40	2.30	30	0
145	150	21.30	19.00	16.70	14.40	12.10	9.80	7.50	5.20	3.00	1.00	0
150	160	22.50	20.20	17.90	15.60	13.30	11.00	8.70	6.40	4.10	2.00	0
160	170	24.10	21.80	19.50	17.20	14.90	12.60	10.30	8.00	5.70	3.40	1.40
170	180	26.00	23.40	21.10	18.80	16.50	14.20	11.90	9.60	7.30	5.00	2.80
180	190	28.00	25.20	22.70	20.40	18.10	15.80	13.50	11.20	8.90	6.60	4.30
190	200	30.00	27.20	24.30	22.00	19.70	17.40	15.10	12.80	10.50	8.20	5.90
200	210	32.00	29.20	26.30	23.60	21.30	19.00	16.70	14.40	12.10	9.80	7.50
210	220	34.40	31.20	28.30	25.40	22.90	20.60	18.30	16.00	13.70	11.40	9.10
220	230	36.80	33.30	30.30	27.40	24.50	22.20	19.90	17.80	15.30	13.00	10.70
230	240	39.20	35.70	32.30	29.40	26.50	23.80	21.50	19.20	16.90	14.60	12.30
240	250	41.60	38.10	34.60	31.40	28.50	25.60	23.10	20.80	18.50	16.20	13.90
250	260	44.00	40.50	37.00	33.60	30.50	27.60	24.70	22.40	20.10	17.80	15.50
260	270	46.40	42.90	39.40	36.00	32.50	29.60	26.70	24.00	21.70	19.40	17.10
270	280	48.80	45.30	41.80	38.40	34.90	31.60	28.70	25.80	23.30	21.00	18.70
280	290	51.20	47.70	44.20	40.80	37.30	33.90	30.70	27.80	25.00	22.60	20.30
290	300	53.60	50.10	46.60	43.20	39.70	36.30	32.80	29.80	27.00	24.20	21.90
300	310	56.00	52.50	49.00	45.60	42.10	38.70	35.20	31.80	29.00	26.10	23.50
310	320	58.40	54.90	51.40	48.00	44.50	41.10	37.60	34.10	31.00	28.10	25.20
320	330	60.80	57.30	53.80	50.40	46.90	43.50	40.00	36.50	33.10	30.10	27.20
330	340	63.60	59.70	56.20	52.80	49.30	45.90	42.40	38.90	35.50	32.10	29.20
340	350	66.40	62.40	58.60	55.20	51.70	48.30	44.80	41.30	37.90	34.40	31.20
350	360	69.20	65.20	61.10	57.60	54.10	50.70	47.20	43.70	40.30	36.80	33.40
360	370	72.00	68.00	63.90	60.00	56.50	53.10	49.60	46.10	42.70	39.20	35.80
370	380	74.80	70.80	66.70	62.70	58.90	55.50	52.00	48.50	45.10	41.60	38.20
380	390	77.60	73.60	69.50	65.50	61.50	57.90	54.40	50.90	47.50	44.00	40.60
390	400	80.40	76.40	72.30	68.30	64.30	60.30	56.80	53.30	49.90	46.40	43.00
400	410	83.20	79.20	75.10	71.10	67.10	63.00	59.20	55.70	52.30	48.80	45.40
410	420	86.30	82.00	77.90	73.90	69.90	65.80	61.80	58.10	54.70	51.20	47.80
420	430	89.50	84.80	80.70	76.70	72.70	68.60	64.60	60.50	57.10	53.60	50.20
430	440	92.70	88.00	83.50	79.50	75.50	71.40	67.40	63.30	59.50	56.00	52.60
440	450	95.90	91.20	86.60	82.30	78.30	74.20	70.20	66.10	62.10	58.40	55.00
450	460	99.10	94.40	89.80	85.20	81.10	77.00	73.00	68.90	64.90	60.90	57.40
460	470	102.30	97.60	93.00	88.40	83.90	79.80	75.80	71.70	67.70	63.70	59.80
470	480	105.50	100.80	96.20	91.60	87.00	82.60	78.60	74.50	70.50	66.50	62.40
480	490	108.70	104.00	99.40	94.80	90.20	85.60	81.40	77.30	73.30	69.30	65.20
490	500	112.20	107.20	102.60	98.00	93.40	88.80	84.20	80.10	76.10	72.10	68.00
500	510	115.80	110.60	105.80	101.20	96.60	92.00	87.40	82.90	78.90	74.90	70.80
510	520	119.40	114.20	109.10	104.40	99.80	95.20	90.60	86.00	81.70	77.70	73.60
520	530	123.00	117.80	112.70	107.60	103.00	98.40	93.80	89.20	84.50	80.50	76.40
530	540	126.60	121.40	116.30	111.10	106.20	101.60	97.00	92.40	87.70	83.30	79.20
540	550	130.20	125.00	119.90	114.70	109.50	104.80	100.20	95.60	90.90	86.30	82.00
550	560	133.80	128.60	123.50	118.30	113.10	108.00	103.40	98.80	94.10	89.50	84.90
560	570	137.40	132.20	127.10	121.90	116.70	111.50	106.60	102.00	97.30	92.70	88.10
570	580	141.00	135.80	130.70	125.50	120.30	115.10	109.90	105.20	100.50	95.90	91.30
580	590	144.60	139.40	134.30	129.10	123.90	118.70	113.50	108.40	103.70	99.10	94.50
590	600	148.20	143.00	137.90	132.70	127.50	122.30	117.10	111.90	106.90	102.30	97.70
600	610	151.80	146.60	141.50	136.30	131.10	125.90	120.70	115.50	110.30	105.50	100.90
610	620	155.40	150.20	145.10	139.90	134.70	129.50	124.30	119.10	113.90	108.70	104.10
620	630	159.00	153.80	148.70	143.50	138.30	133.10	127.90	122.70	117.50	112.30	107.30
630	640	162.60	157.40	152.30	147.10	141.90	136.70	131.50	126.30	121.10	115.90	110.70
		30 percent of the excess over $640 plus—										
$640 and over		164.40	159.20	154.10	148.90	143.70	138.50	133.30	128.10	122.90	117.70	112.50

ATTACHMENT C1 #1076
Weekly Payroll Form

EXEMPTION	NAME	SOC. SEC. No.	TOTAL HRS.	REG. HRS.	OVERTIME HRS.	RATE
M 3	ANDREWS, ANTHONY	657 86 9680	36	36		352
M 4	BENZ, ROBERTA	347 71 8337	45	40	5	406
S 0	BRUNET, KAY	394 42 2634	40	40		331
M 2	CHIRICO, CORETTA	926 54 2652	54	40	14	376
S 1	CULVER, MARGARET	315 81 1759	32	32		513
S 0	DONATO, EDWARD	367 87 3782	20	20		312
M 1	FESS, ROSE	325 82 3995	45	40	5	563
S 0	GEORGER, MELISSA	338 67 5266	40	40		476
M 0	HALL, KEITH	538 54 1858	48	40	8	389
M 3	HOOPER, DOUGLAS	889 72 2348	40	40		376
S 1	KEENE, LESLIE	394 21 1509	48	40	8	331
M 2	LANNUTI, IVORY	398 25 3379	40	40		331
S 0	MACKENZIE, LYNN	243 44 2335	20	20		312
M 3	McSWEENEY, FLETCHER	367 42 6795	32	32		406
S 1	MUSTARD, FRANK	229 86 8792	20	20		312
S 3	PARK, ELIJAH	046 84 4345	24	24		352
M 5	QUINN, RAQUEL	715 31 2076	40	40		406
S 0	ROSEN, ELLSWORTH	846 17 6076	54	40	14	406
M 3	SCIOLINO, ALFONSO	694 98 4338	40	40		513
M 4	STEBEDA, ANTHONY	515 68 1930	45	40	5	476
S 3	VANNCOTT, CATHERINE	125 17 2183	36	36		331
M 6	WHITE, STAR	257 24 3495	54	40	14	406
S 1	ZORN, ARTHUR	134 45 6252	32	32		376
	TOTAL					

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ATTACHMENT C2 #1076
Weekly Payroll Form

REG. WAGES	OVERTIME WAGES	TOTAL WAGES	FICA .0585	FED. WITHHOLDING TAX	LOCAL WITHHOLDING TAX	HEALTH INS.	TOTAL NET PAY
						817	
						817	
						817	
						817	
						817	
						817	
						817	
12992		12992	760	1120	780	817	
6240		6240	365	590	374		
8448		8448	494	460	507		
16240		16240	950	1260	974	817	
16240	8526	24766	1449	4780	1486		
20520		20520	1200	2360	1231	817	
19040	3570	22610	1323	2450	1357	817	
11916		11916	697	1050	715		
16240	8526	24766	1449	2310	1486	817	
12032		12032	704	1760	722		
						9804	

ATTACHMENT D #10.6

First Quarter – Totals

	Total Wages	DEDUCTIONS FICA	Federal Withhold.	Local Withhold	Health Insurance	Total Net Pay	
1.	1,957 12	114 51	196 80	117 42	106 21		1.
2.	2,312 17	135 26	225 50	138 69	106 21		2.
3.	2,015 92	117 93	361 40	120 90			3.
4.	2,094 32	122 50	252 30	125 62	106 21		4.
5.	3,016 58	176 46	554 60	180 99			5.
6.	811 20	47 45	110 50	48 62			6.
7.	3,093 75	169 25	430 00	173 57	106 21		7.
8.	2,860 76	167 36	557 10	171 60			8.
9.	2,034 56	119 00	297 80	122 12	106 21		9.
10.	2,210 88	129 34	216 00	132 60	106 21		10.
11.	2,034 16	119 01	325 50	123 03			11.
12.	1,833 88	107 33	205 10	110 00	106 21		12.
13.	780 00	45 61	104 50	46 74			13.
14.	2,249 24	131 58	293 60	134 92	106 21		14.
15.	780 00	45 63	70 90	46 73			15.
16.	1,826 88	106 90	247 00	109 61			16.
17.	2,032 26	119 46	152 20	122 50	106 21		17.
18.	2,561 86	149 87	580 40	153 72			18.
19.	1,883 20	168 62	355 60	172 97	106 21		19.
20.	2,506 14	146 63	257 70	150 35	106 21		20.
21.	1,782 50	104 29	192 10	106 93			21.
22.	2,464 42	144 17	195 50	147 84	106 21		22.
23.	2,083 04	121 88	341 20	124 94			23.
24.							24.

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Average Quarterly Gross Pay ____________

Average Quarterly Net Pay ____________

CAREER EXPLORATION RATING SCALE

Name ________________________________ Date ____________

Please indicate your feelings about the following statements using the rating scale:

1 = yes 2 = maybe 3 = no

1. My overall interest in this career area has increased 1 2 3
2. I know more about job skills because of this experience. 1 2 3
3. I would enjoy doing this type of work as a future career. 1 2 3
4. I better understand my abilities to do this kind of work. 1 2 3
5. This experience has helped me think about my future career. 1 2 3
6. I would like to do additional tasks with the electronic calculator. 1 2 3

SECTION B

Complete the following sentences.

1 For me this experience has been ________________________________

2. I wish that I ________________________________

APPENDIX IV-3

WHAT'S A CRC?

WHAT'S A CRC?

A career information center? An audio-visual equipment area? A learning laboratory? A teacher work area? A classroom? A student work area? A guidance suite? A group conference area?

A Career Resource Center (CRC) is all of the above and more. Its an atmosphere and an attitude that encourages students to gain information, skills and self-understanding to successfully make decisions related to their career undertakings and the related life style.

Basic services of the CRC include:

1. Providing career orientation and decision making information to students and teachers.
    a. Printed materials, filmstrips and cassette tapes.
    b. Career planning kits.
    c. Decision making units.
    d. Self understanding units (interest, aptitudes and abilities).
2. Providing curriculum development consultation for teachers.
3. Arranging for learning excursions and career consultants through the Admiral Peary AVTS, local business and industry.
4. Providing (secondary) students with the opportunity to develop job readiness.
5. Providing (secondary) students with job placement assistance.

CRC's are located in or near guidance offices in each school. They are designed for student as well as teacher use and may usually be used anytime during regular school hours.

CHECK OUT THE CRC IN YOUR SCHOOL TODAY.

8/74

APPENDIX IV-4

OUTLINE OF THE PORTAGE AREA ELEMENTARY MIDDLE SCHOOL ELEMENTARY GUIDANCE PROGRAM 1975-76

PORTAGE AREA ELEMENTARY MIDDLE SCHOOL

Major thrust of Guidance Service this school year

I. SELF AWARENESS - Weekly group sessions with all fifth and sixth graders dealing with: Self Confidence, Strengths and Weaknesses

  A. Self Concept
  B. Attitudes
  C. Interpersonal Relationships
  D. Goal Setting
  E. Problem Solving
  F. Value Clarification

II. CAREER AWARENESS

  A. Weekly Large/Small group sessions with all fifth and sixth graders
    1. Career clusters (15)
    2. Orientation to Learning Station
    3. Follow-up on Singer Carrel
  B. Individual sessions with hands-on emphasis - Singer Carrels
  C. Curriculum Infusion - Financial and Consultant support services available

PORTAGE AREA ELEMENTARY-MIDDLE SCHOOL GUIDANCE PROGRAM

A guidance program was implemented to provide Portage Area Elementary-Middle School Students with opportunities to explore their own interests and abilities as related to future careers and school subjects.

A series of small group and individual experiences dealing with student self concept, general knowledge, and exploration of approximately 1000 job areas began early in October 1975 under the direction of Mr. John Buchovecky, Guidance Counselor. Each 5th and 6th grade class met as a group for one period per week to discuss:

1. Specific information on groups of occupations, including job titles, tasks performed on the job, tools used, work environment and training needed or
2. An aspect of their affective development such as self concept, values, attitudes and goals.

Role playing, small group question and answer sessions, film strips, simulation, community resource people and educational games were utilized. In addition approximately twenty-four students per week have a two and one half hour individual career exploratory experience. The Singer Vocational Evaluation System was utilized for this purpose. It consists of 17 self contained individual work sample learning stations. They contained the actual tools and materials necessary to accomplish certain work tasks related to specific group of occupations thus providing the student with hands-on experiences.

APPENDIX IV-5

WEEKLY GROUP GUIDANCE CLASS SCHEDULES
AT
PORTAGE AREA ELEMENTARY-MIDDLE SCHOOL

FIFTH AND SIXTH GRADE CLASS SCHEDULE

FOR

CAREER AND SELF AWARENESS PROGRAMS (SECOND SEMESTER)

(Program Begins the week of January 19
Terminates April 30)

PERIOD	GRADE	CLASS	DAY	SUBJECT
1	6	64	F	I. S.
2	6	63	F	I. S.
3	6	62	F	I. S.
4	6	61	F	I. S.
		Jan. 21, Feb. 18 Mar. 17, Apr. 14		
1	5	51	W	Math.
2	5	52	W	Math.
3	5	53	W	Math.
4	5	54	W	English
		Jan. 28, Feb. 25 Mar. 24, Apr. 21		
1	5	54	W	Art
2	5	51	W	Art
3	5	52	W	Art
4	5	53	W	Art
		Feb. 4, Mar. 3 Mar. 31,Apr. 28		
1	5	53 Denise Jones	W	Soc. St.
2	5	54	W	Health
3	5	51	W	Health
4	5	52	W	Health
		Feb. 11, Mar. 10 Apr. 7, May 5		
1	5	52	W	Sp./Writ.
2	5	53	W	Sp./Writ.
3	5	54	W	Reading
4	5	51	W	Reading

FIFTH AND SIXTH GRADE CLASS SCHEDULE

FOR

CAREER AND SELF AWARENESS PROGRAMS

(Program Begins the week of November 3)

PERIOD	GRADE	CLASS	DAY	SUBJECT
1	6	64	F	I. S.
2	6	63	F	I. S.
3	6	62	F	I. S.
4	6	61	F	I. S.
		Nov. 5, Dec. 10		
1	5	51	W	Math
2	5	52	W	Math
3	5	53	W	Math
4	5	54	W	English
		Nov. 12, Dec. 17		
1	5	54	W	Art
2	5	51	W	Art
3	5	52	W	Art
4	5	53	W	Art
		Nov. 19, Jan. 7		
1	5	53	W	Social St.
2	5	54	W	Health
3	5	51	W	Health
4	5	52	W	Health
		Dec. 3, Jan. 14		
1	5	52	W	Sp./Writ.
2	5	53	W	Sp./Writ.
3	5	54	W	Reading
4	5	51	W	Reading

APPENDIX IV-6

SINGER CARREL DESCRIPTION/SELECTION FORMS

PORTAGE AREA SINGER CARRELS DESCRIPTION/SELECTION FORM

The Singer Carrels are work-sample-stations. They contain all the tools and materials necessary to accomplish certain tasks which are related to a specific group of occupations. A short description of the seventeen carrels follows:

1. Basic Tools Station - the student determines the exact size of his ring finger and fabricates a ring to fit by using basic tools to measure , scribe and cut a 1/8" aluminum bar then drilling, filing and polishing to the finished product.
2. Bench Assembly Station - the student is instructed to insert nuts and bolts of various sizes into a metal test block to judge the students frustration and job tolerance level.
3. Drafting Station - the student will draw simple straight intersecting lines, concentric circles, angles and a three dimensional view of a grooved block using neatness and accuracy.
4. Electrical Wiring Station - the student measures insulated wire, cuts, strips and joins pieces together in a permanent splice using a soldering iron and gun.
5. Plumbing and Pipe Fitting Station - the student measures and cuts iron pipe, threads the ends of the pipes and assembles a pipe framework using various sizes of plumbing nipples, tee joints, elbow and union joints.
6. Carpentry and Woodworking Station - the student measures, lays-out, cuts, drills, sands, files, and glues pieces of wood into a napkin holder.
7. Refrigeration, Heating and Air Conditioning - the student measures and cuts copper tubing and joins into a network utilizing flare fittings and compression ring couplings.
8. Soldering and Welding Station - the student measures, cuts, reams, and sands copper tubing, joins together using copper sleeves with heat supplied by a propane torch.
9. Office and Sales Clerk Station - the student alphabetically and numerically files a series of cards using a charge card, a charge card imprinter and a number of charge card slips as though he were a sales clerk.
10. Needle Trades Station - the student learns to operate a sewing machine, then measures and cuts a piece of cloth and sews the pieces into a small bag.
11. Masonry Station - the student mixes mortar and lays bricks using straight edges and squares.
12. Sheet Metal Working Station - the student will be exposed to four major phases of sheet metal industry. He will layout, cut, bend, and assemble sheetmetal parts.
13. Cooking and Baking Station - the student will measure and mix ingredients, knead and shape dough, and operate an oven making a biscuit type short cake.
14. Small Engine Service Station - the student is required to disassemble, reassemble and adjust a small engine of the lawn mower type.
15. Medical Service Station - the student applies an elastic bandage to an artificial arm; measures and records temperature, pulse rate and respiration rate exploring elements found in the medical-hospital environment.
16. Cosmetology Station - the student will perform tasks related to the care and styling of hair and beauty treatments, using a mannequin with hair and the professional tools of the trade, including blow dryer, scissors, shampoo, and combs.
17. Data Calculation and Recording - the student will use an Electronic Calculator, and with the use of charts and other aids learn to add, subtract, multiply, divide on the calculator.

Please list your choice of carrels below:

----------------------(Fold and tear here.)-----------------

	Carrel Number	Carrel Name
1st. Choice	________	____________
2nd. Choice	________	____________
3rd. Choice	________	____________

Please detach and return to your homeroom teacher by ________

YOUR NAME ______________________________

GRADE and SECTION ____________ DATE ____________

HOLY NAME ELEMENTARY SCHOOL SINGER CARREL
DESCRIPTION/SELECTION FORM

The Singer Carrels (10, 11, and 13) and Exploring Unit I are work-sample-stations. They contain all the tools and materials necessary to accomplish certain tasks which are related to a specific group of occupations. A short description of the seventeen carrels follows:

10. Needle Trades Station - the student learns to operate a sewing machine, then measures and cuts a piece of cloth and sews the pieces into a small bag.

11. Masonry Station - the student mixes mortar and lays bricks using straight edges and squares.

13. Cooking and Baking Station - the student will measure and mix ingredients, knead and shape dough, and operate an oven making a biscuit type short cake.

E. Exploring - small engine repair and maintenance. The student will use some of the tools common to auto, truck, and small engine mechanics. Tasks such as adjusting spark plugs and ignition points, changing oil, and general maintenance operations will be performed by the student. Community related occupations and workers will also be studied.

Please list your choice of carrels below:

(Fold and tear here.)

Work Station Name

1st. Choice ______________________________

2nd. Choice ______________________________

Please detach and return to your homeroom teacher by ________

YOUR NAME ______________________________

GRADE ____________________ DATE ____________

APPENDIX IV-7

SINGER CARREL USE TALLY FORMS

TALLY OF SINGER CARREL USAGE FOR 1975-76

	TOTAL	PORTAGE 5th GRADE	PORTAGE 6th GRADE	HOLY NAME 7th GRADE	HOLY NAME 8th GRADE
1. Basic Tools	32	15	17		
2. Bench Assembly	2	1	1		
3. Drafting	21		4	5	12
4. Electricity	30	8	19		3
5. Plumbing	11	5	6		
6. Carpentry	32	14	18		
7. Air Conditioning	4	1			3
8. Soldering	38	17	17		4
9. Office and Sales	37	9	22		6
10. Needle Trades	68	15	14	15	24
11. Masonry	63	9	7	20	27
12. Sheet Metal	3	2	1		
13. Cooking and Baking	132	32	34	29	37
14. Small Engine	29	14	15		
15. Medical Service	36	13	19		4
16. Cosmetology	46	16	27		3
17. Data Calculation	35	14	17		4
E. Exploring	43			17	26
	662	185	238	86	153

TALLY FOR STUDENTS UTILIZING THE SINGER CARRELS*

in the Portage Area Jr. - Sr. High School

for the 1975-76 School Term

SEVENTH GRADE:	51 students
EIGHTH GRADE:	20 students
NINTH GRADE:	24 students
TENTH GRADE:	4 students
TOTAL:	99 students

(Many of the above students have worked on two; three; and in some cases, four Singer Carrels).

JOHN BUCHOVECKY
4/5/76

*This usage was an example of local effort resulting from project initiated activities from the previous year.

APPENDIX IV-8

CAREER EXPLORATION RATING FORM

CAREER EXPLORATION RATING FORM

NAME ______________________ DATE ________

EVALUATOR ______________________ GRADE ________

CARREL NUMBER AND NAME ______________________

This is my (1st, 2nd, 3rd) Career Exploration.

SECTION A

1. Would you want to have a job like the people you just saw in the pictures? (Mark an "X" in the box that best tells how you feel.)

☐ No! ☐ Don't Know ☐ Maybe ☐ Yes!

2. I picked this carrel because: ______________________

____

____

____

____

____

____

SECTION B

Rank the following statements about the Career Exploration Program using the rating scale:

1 = Strongly disagree 2 = No opinion 3 = Strongly Agree

Please indicate your feelings about the following statements:

1. My overall interest in this career area has increased. 1 2 3
2. I know more about job skills because of this experience. 1 2 3
3. I know about more jobs related to this career area. 1 2 3
4. I would enjoy doing this type of work as a future career. 1 2 3
5. I better understand my abilities to do this kind of work. 1 2 3
6. This experience has helped me think about my future career. 1 2 3
7. I feel that this program was a valuable experience for me. 1 2 3

SECTION C

Complete the following sentences.

1. For me this experience has been ______________________

____

____

____

____

____

2. I wish that I ______________________

____

____

____

____

____

APPENDIX IV-9

EXPLORING
AN INDIVIDUALIZED LEARNING STATION
FOR
SMALL ENGINE REPAIR

The material presented herein was performed pursuant to a grant from the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Project No. V361012
Grant No. OEG-0-73-5272
1 July 1973 through 30 June 1976

For further information contact:

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Associate Director for Research

Admiral Peary Area Vocational-Technical School
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Ebensburg, Pennsylvania 15931

814-472-6456

The Local Educational Agency(LEA) for this project is the Admiral Peary Area Vocational-Technical School.

Mr. Mario Creamy, Chief School Administrator

Dr. Bryan Fluck, Executive Director of Vocational Education

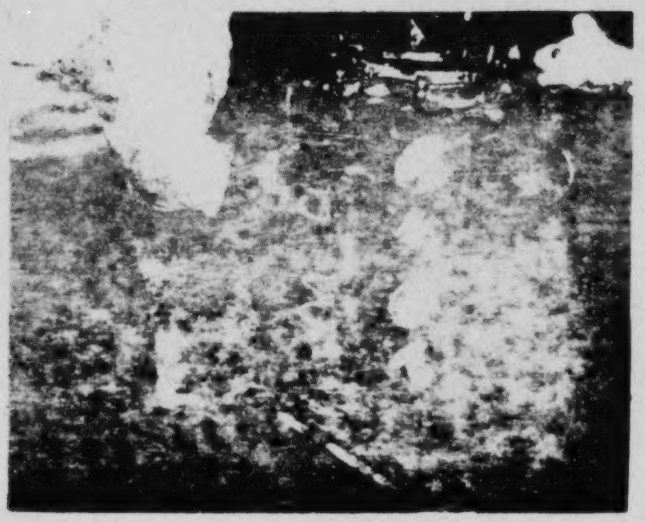
Mr. John Buriak, Director of Vocational Education

EXPLORING

CREATED FOR CAREER EDUCATION
PROJECT V361012 by:

Dr. Clifford A. Baylis, Jr.
Mr. John J. Jaboda, Jr.
Mrs. Leona M. Sowers

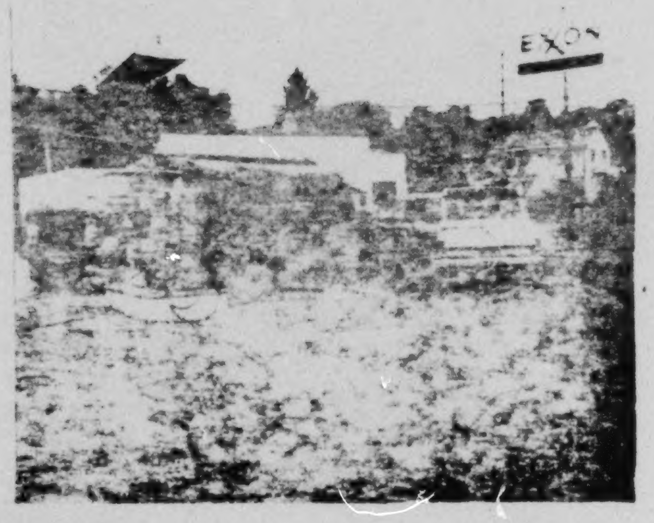
"A NEW ENGINE BLOCK"



Specializing in one phase of auto repair such as engine rebuilding offers many job opportunities. Other auto-mechanic specialities include tune-up, air-conditioning, front-end, brake, radiator, and glass specialists.

288

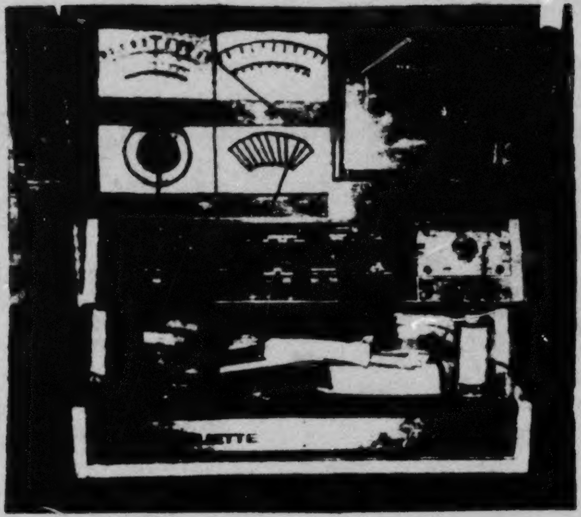
"FILL 'ER UP?"



The gasoline supplier provides one of the basic materials we all depend upon. The service station attendent's job is dependent upon the supplier. Many service station attendents do minor auto and engine repair and maintenance work when they are not pumping gasoline.

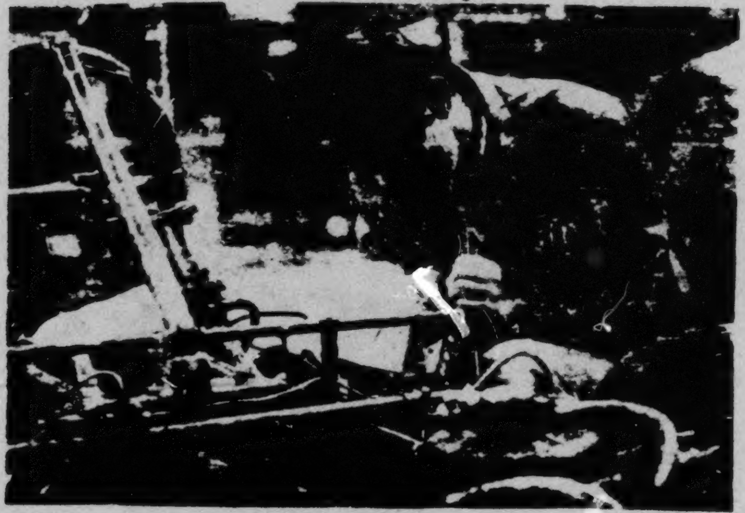
289

"BLAST OFF"



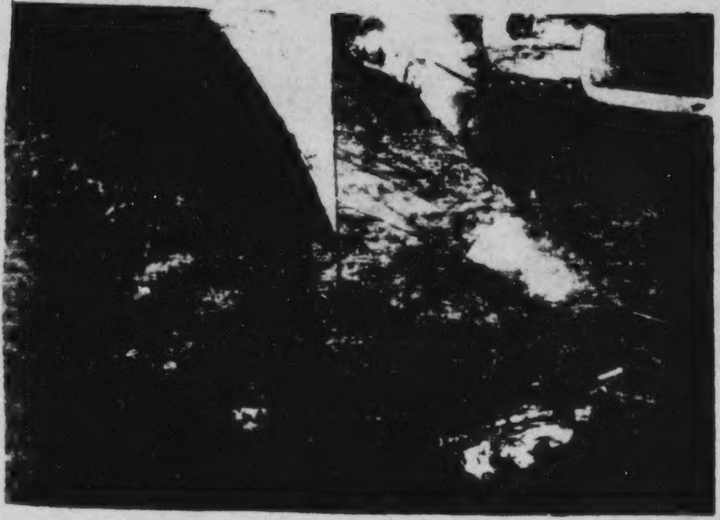
An auto mechanic has to be able to use complex electronic equipment. Some of the instruments used are Oscilloscopes, Dwellmeters, Tachometers, Exhaust Analyzers, and Timing Lights.

"IT MISSES AT 160 M.P.H. !!!"



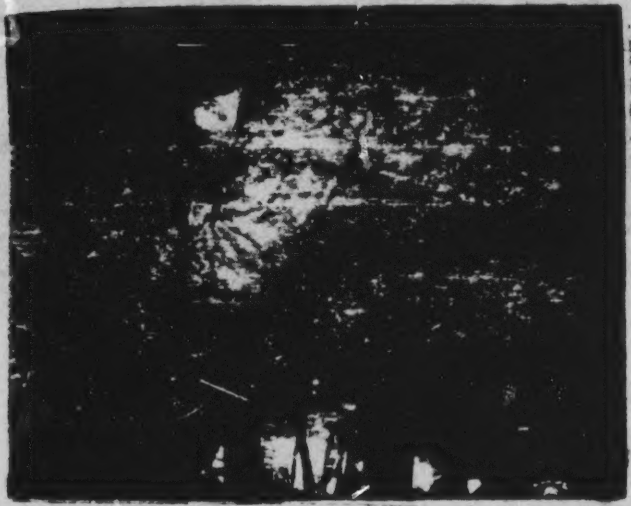
Some race car drivers double as their own mechanics. Many persons who have an interest but do no pursue auto mechanics as a career find that it can be a money-saving and even profitable hobby.

"YUK!!"



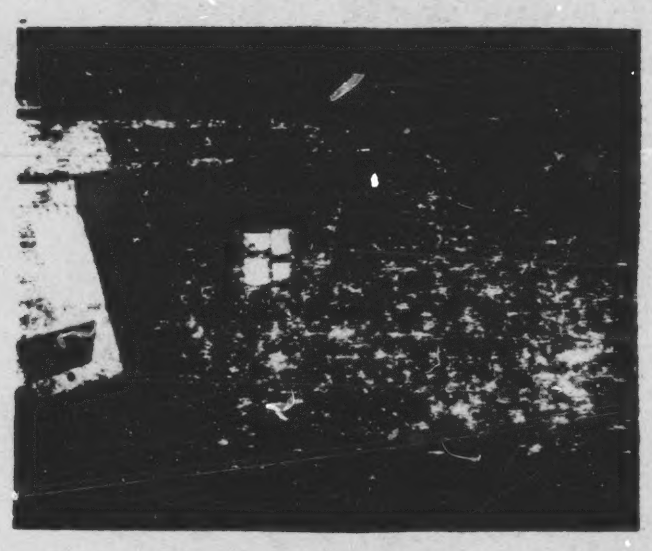
Replacing a wheel bearing on a school bus. Since petroleum products are used extensively as engine lubricants, auto mechanics often must work with parts that are oil or grease covered. 292

"THIS MECHANIC REALLY GETS INTO HIS WORK!!!"



Actually he is making an adjustment on the distributor. Mechanics often work in somewhat confined spaces and in awkward positions. 293

"DIESEL MECHANICS"



Today's farm machinery is quite complicated. Highly trained diesel mechanics are needed for servicing and repair work.

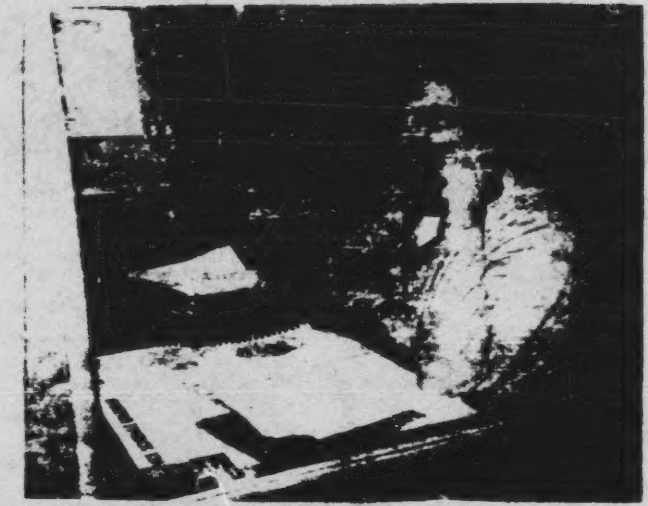
"PUT SOME SPARK IN YOUR LIFE"

It is often helpful if a mechanic has acquired other related skills such as welding, soldering, and a knowledge of electronics.

INTRODUCTION

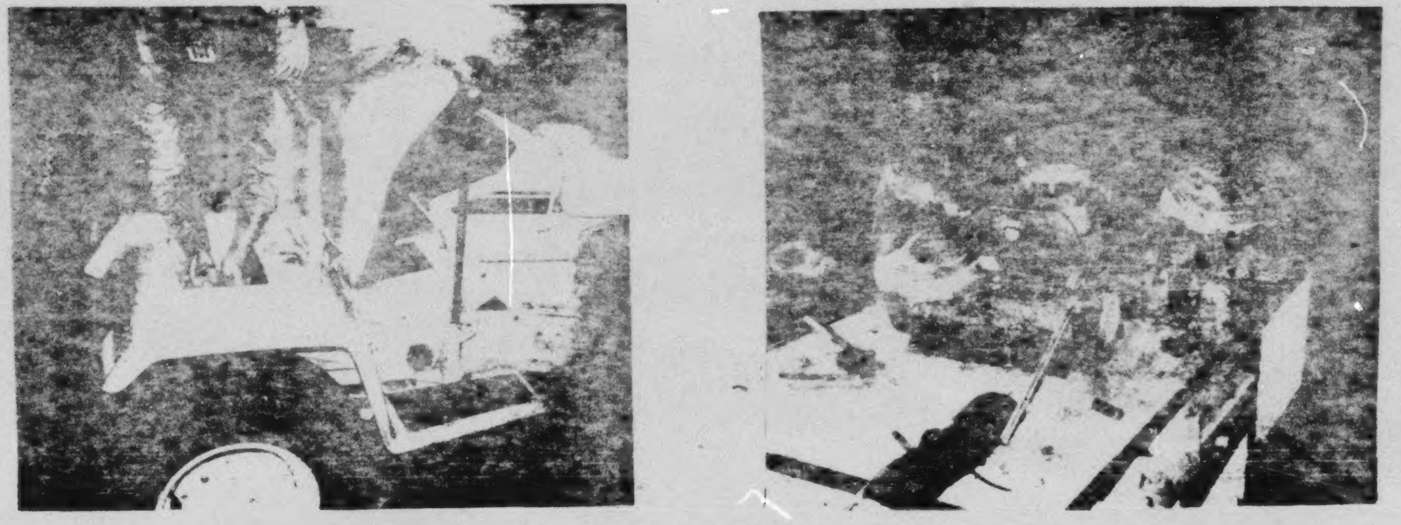
Auto, truck, and diesel mechanics are one of the groups of people who work in the transportation industry. Sometimes mechanics are also involved in the repair and maintenance of small engines. The purpose of this booklet is to help you to begin to think and talk about people and the kinds of jobs they perform.

"SERVICE WITH A SMILE"



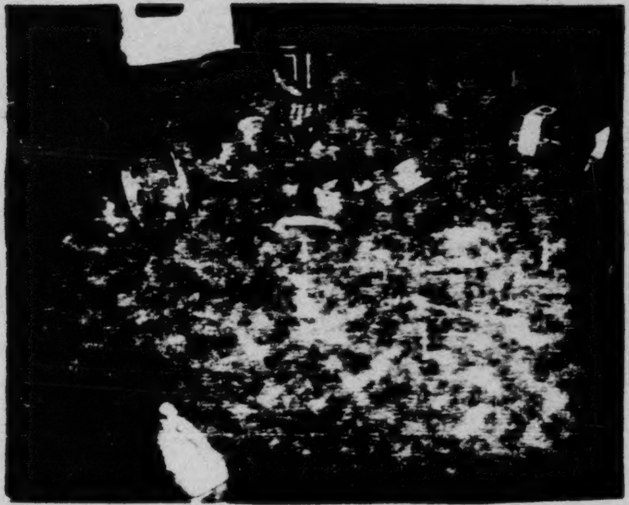
Scheduling a customer's car, tractor, or snowmobile for service or repair is one of the functions of a service manager.

"WHEN ARE YOU GOING TO CUT THAT GRASS??"



Small engine mechanics work on all types of gasoline powered lawnmowers. Some are also responsible for sales of new and used equipment. The average hourly wage for auto repair persons and mechanics was between $3.00-$8.75 an hour during 1974.

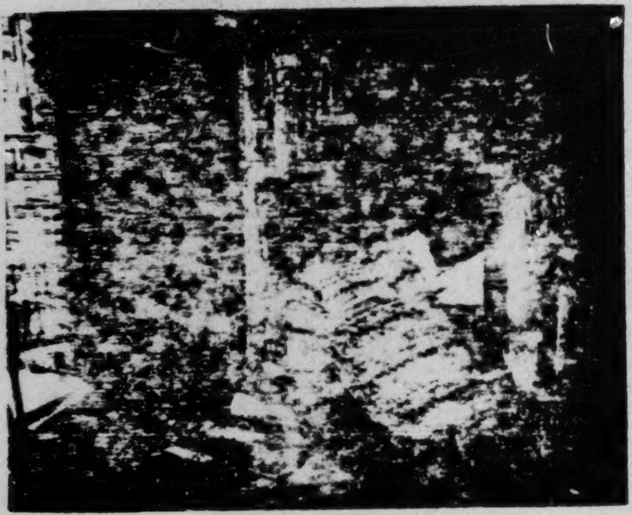
"ALL THOSE PARTS CAME FROM THAT LITTLE BOX??"



After dismantling this automatic transmission, finding and repairing the problem, the mechanic must reassemble and test it. Although removing the transmission may be a somewhat dirty job, extreme cleanliness procedures must be observed in reassembly.

300

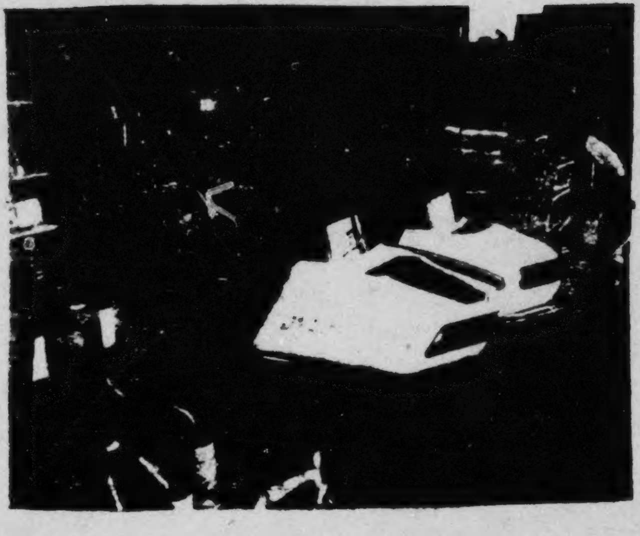
"EIGHT SPARK PLUGS, A NEW DISTRIBUTOR CAP, AND A LOAF OF BREAD ????"



Mechanics purchase new and reconditioned parts from automotive supply houses. Clerks in these stores must be able to read charts, remember large numbers and record written information accurately.

301

"THINK SNOW"



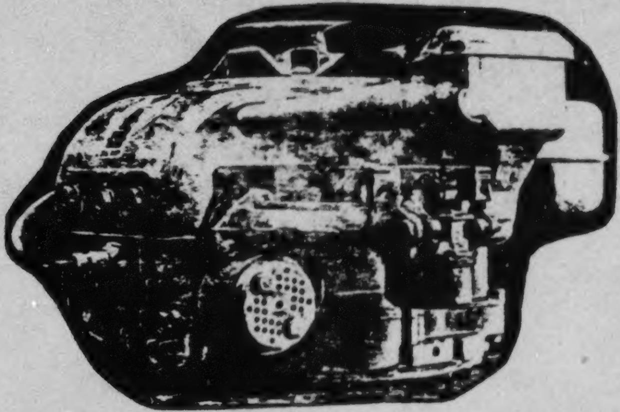
Snowblowers and snowmobiles need service and repair too. Many dealerships are small and their owners must be salespersons, and managers as well as mechanics.

"DOING BENCH WORK"

Many engine components such as this tractor starter can be removed from the vehicle for easier repair or servicing.

EXPLORING

EXPEDITION 1



PHOTOGRAPHY BY:
Mr. Wayne Collins

CREATED FOR CAREER EDUCATION
PROJECT V361012 by:

Dr. Clifford A. Baylis, Jr.
Mr. John J. Jahoda, Jr.
Mrs. Leona M. Sowers

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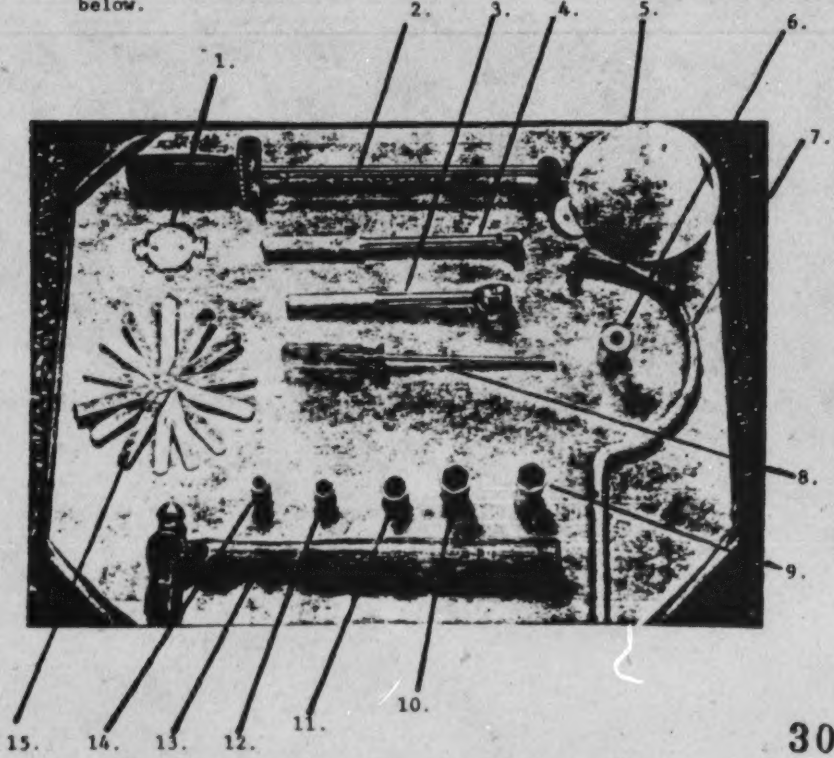
1. TOOL IDENTIFICATION

OBJECTIVE:
When you are finished with this exercise you will be able to correctly name at least 12 of the 15 tools in the photo below.



1. Spark Plug Setting Tool
2. Torque Wrench
3. Ratchet
4. 10" Flex Bar
5. Funnel
6. Flywheel Knock-off Tool
7. Flywheel Removing Tool
8. Screwdriver
9. 13/16" Deepwell Socket
10. 13/16" Spark Plug Socket
11. 11/16" Socket
12. 1/2" Socket
13. Ballpeen Hammer
14. 7/16" Socket
15. Feeler Gauge

FIRST ACTIVITY: Study Photo 1 paying particular attention to the shape and name of each tool shown.

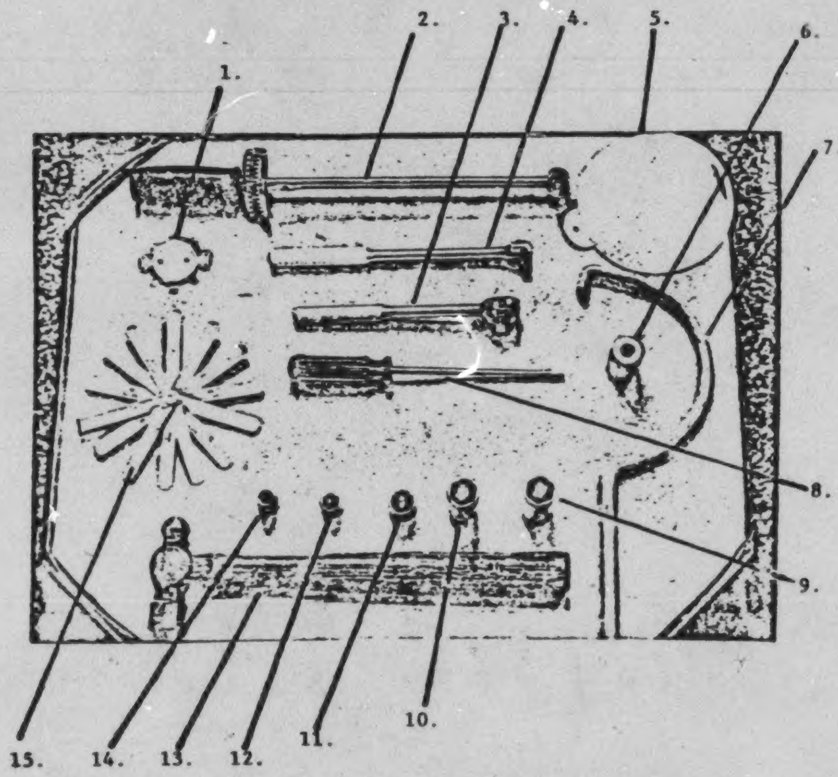
SECOND ACTIVITY: Select one tool from the tool box. Place this tool on the tool board in its designated space. Repeat the name of the tool to your self as you place it on the board. Repeat steps one and two until the tool board is complete.

EVALUATION: Try the following matching activity. How many do you know without using the photo on tool board? Look at the objective stated for this task. Were you able to name 12 of the 15 tools?

You are now ready for the next task. Call your instructor.

EVALUATION - TOOL IDENTIFICATION

Directions: Write the correct name of each of the tools numbered below in the blanks provided. Use the list of tools as a reference.



NAME ______________________ GRADE ______ DATE __

ANSWERS:

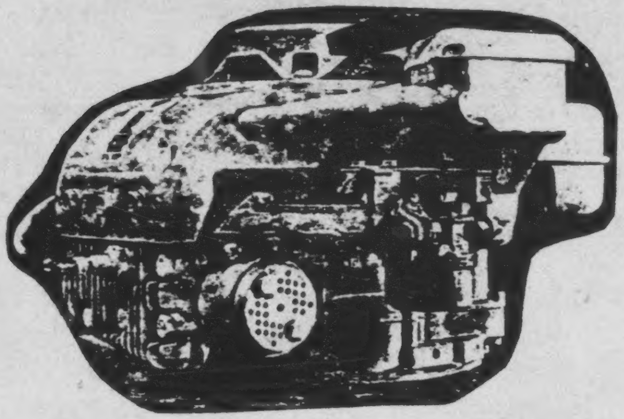
1. ______________________
2. ______________________
3. ______________________
4. ______________________
5. ______________________
6. ______________________
7. ______________________
8. ______________________
9. ______________________
10. ______________________
11. ______________________
12. ______________________
13. ______________________
14. ______________________
15. ______________________

REFERENCE LIST

Ballpeen Hammer
Screwdriver
Ratchet
10" Flex Bar
13/16" Spark Plug Socket
13/16" Deep Well Socket
Feeler Gauge
Torque Wrench
11/16" Socket
1/2" Socket
Flywheel Removing Tool
Spark Plug Setting Tool
Funnel
Flywheel Knock-off Tool
7/16" Socket

EXPLORING

EXPEDITION 2



PHOTOGRAPHY BY:
Mr. Wayne Collins

CREATED FOR CAREER EDUCATION
PROJECT V361012 by:

Dr. Clifford A. Baylis, Jr.
Mr. John J. Jahoda, Jr.
Mrs. Leona M. Sowers

2. REMOVE, INSPECT, ADJUST AND REPLACE SPARK PLUG

OBJECTIVE: When you are finished with this exercise you will be able to remove, inspect, adjust and replace the spark plug in a small gasoline engine.

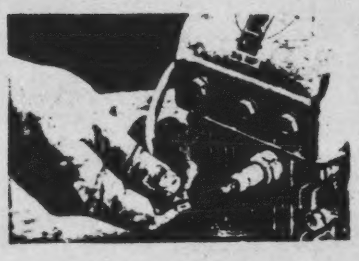


Figure 1

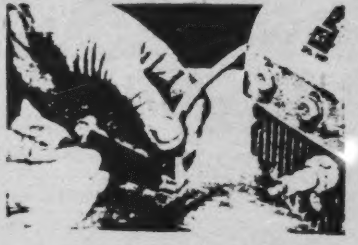


Figure 2

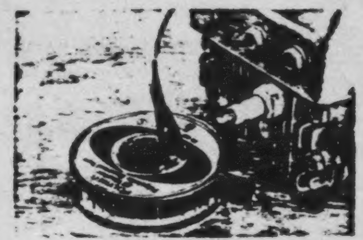


Figure 3

. Locate the spark plug with wire attached.
. Remove wire from spark plug.
. Remove a 6" piece of black tape from roll.
. Wrap wire end so all exposed metal parts are covered.

SECOND ACTIVITY:

. Select the ratchet and 13/16" spark plug socket from the tool board.
. Snap the socket to the ratchet as in Figure 4, 5, and 6A.
. Practice adjusting the butterfly shaped lever on the back of the ratchet (Figure 6B). This lever changes the direction of ratation of the attached socket.

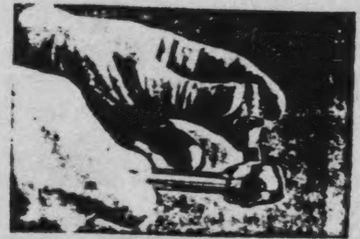


Figure 4

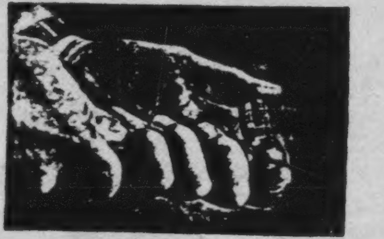


Figure 5

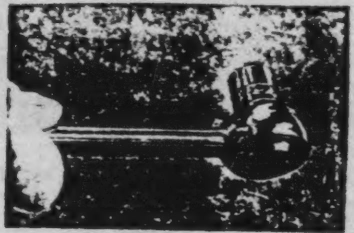


Figure 6A

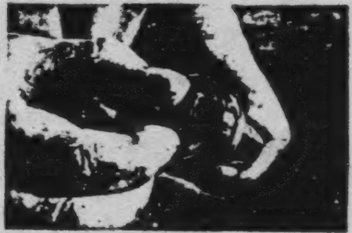


Figure 6B

IMPORTANT NOTE: For most automotive applications turning a bolt in a clockwise direction ↻ tightens it; turning in a counterclockwise ↺ direction loosens it.

- Adjust the ratchet and socket so that the socket turns in a counterclockwise direction.
- Place the socket over the spark plug and remove it. Figures - 7, 8, 9, and 10. (Remember "IMPORTANT NOTE" above.)

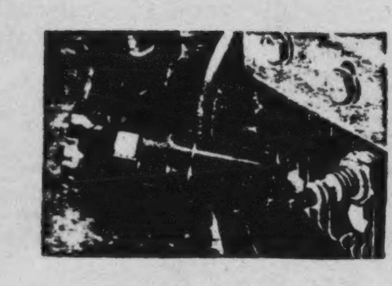


Figure 7

Figure 8

Figure 9

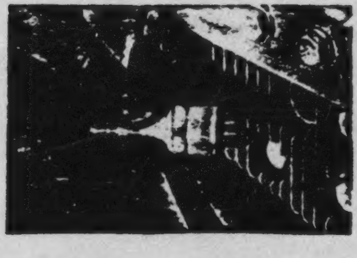
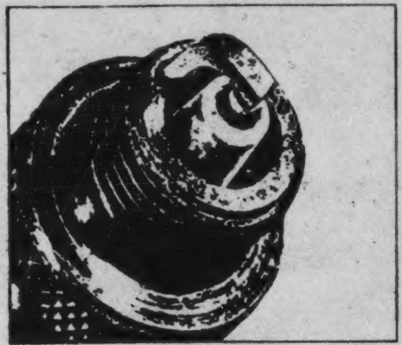


Figure 10

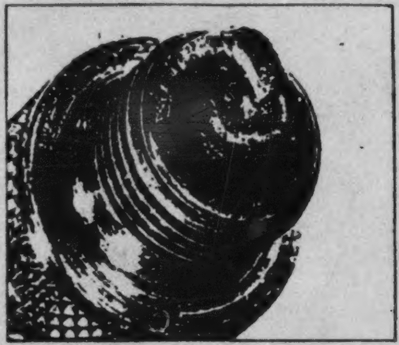
THIRD ACTIVITY:

Examine the electrodes for wear, damage or other signs of engine problems using the guide pictures below:



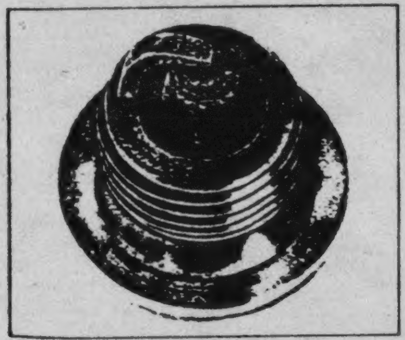
3. Normal Plug

3. Light tan or gray-colored ash deposits and some electrode wear are typical of a normal plug. If the porcelain is extremely white, the engine may be running too lean.



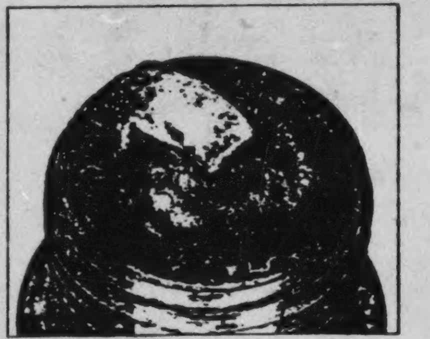
4. Oil-Fouled Plugs

4. If the deposits are black and heavy, the trouble is probably that of excessive oil in the cylinders. However, it could also be caused by flooding of the carburetor.



6. Worn-Out Plug

6. Plugs do wear out. If there is a lot of wear on the electrodes and the insulator looks pitted, it's time to replace the plug.



8. Scavenger Deposits

8. Flaky, white or yellow deposit is caused by scavenger additives in the gasoline. These deposits will easily come off in a plug cleaner.

* Petersons Basic Auto Repair Manual
6th Revised Edition
1974 Peterson Publishing Co.
Los Angeles, California
pp. 42-43

FOURTH ACTIVITY:

- Study the sequence of pictures below (Figures 11 and 12) paying particular attention to how the spark plug adjusting tool is used to bend the outer electrode thus enlarging the "gap" or opening between the electrodes. Also note that the spark plug setting tool has a series of numbers next to each ⊐ shaped wire

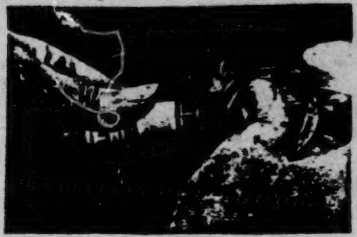


Figure 11

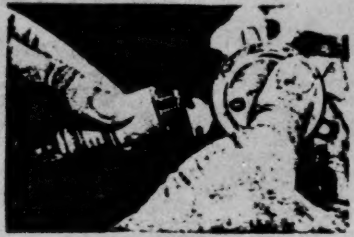


Figure 12

- Find the size of the spark plug adjusting tool which has [illegible], 18, 25 30,35, and 40 stamped on it and deter[illegible] which wire will just fit between the electrodes. This is the gap setting in the thousandths of an inch.

- Adjust the gap to 40 thousandths - adjust it again to 30 thousandths. Call you instructor.

- Replace the spark plug in the engine finger tight. Figures 13 and 14.

- Select the torque wrench and the 13/16" spark plug socket, snap them together.

- Observe the numbered scale near the handle of the torque wrench. The red scale is calibrated in metric units and black scale indicates inch/pounds from 0 to 600 in either direction. This black scale is the one we will be using for our work in this unit.

- Observe the pivoted handle. When using the torque wrench it is important to allow the handle to "float" meaning that neither the front or back of the handle should touch when the tool is in use if we are to get accurate scale readings.

- Place the torque wrench and the 13/16" socket combination over the spark plug and tighten until the black scale reads 200 inch/pounds. Figure 15

Figure 13

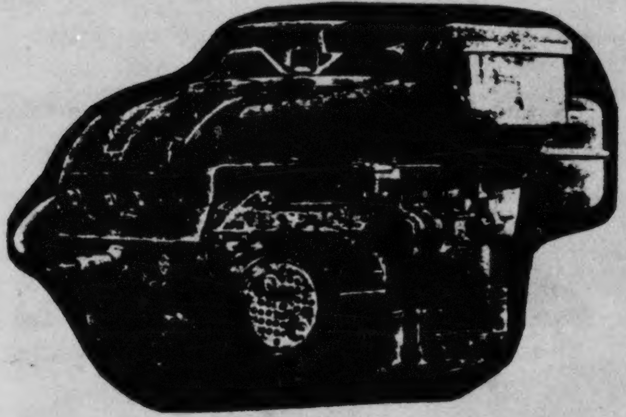
Figure 14

Figure 15

- Remove the tape from the spark plub cable and reconnect to the spark plug.

EXPLORING

EXPEDITION 3



PHOTOGRAPHY BY:
Mr. Wayne Collins

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PROJECT V361012 by:

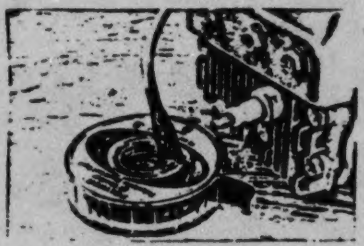
Dr. Clifford A. Baylis, Jr.
Mr. John J. Jahoda, Jr.
Mrs. Leona M. Sowers

EXPEDITION 3

3. CHANGING OIL, SERVICING FUEL TANK AND AIR FILTER

OBJECTIVE:
When you are finished with this exercise you will be able to change oil, remove and service the fuel tank and air filter of a small gasoline engine.

* Remove and tape the spark plug wire as described earlier.



FIRST ACTIVITY:

- . Select the ½" socket and attach it to the ratchet.
- . Adjust the ratchet so it turns in a ↺ counterclockwise (loosening) direction.
- . Find the container marked "oil catch".
- . Place the ratchet and socket on the oil drain plug as seen in Figures 1 and 2. Loosen but do not remove the oil drain plug.

Figure 1

Figure 2

. Place the "oil catch" container under and carefully remove the oil drain plug as in figures 3 and 4.

Figure 3

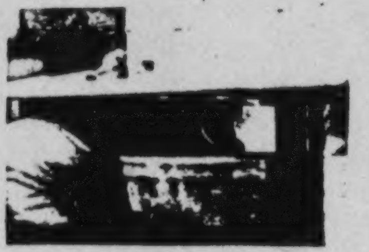


Figure 4

. Carefully remove the oil catch container after all oil has drained.

* KEEP A PAPER TOWEL HANDY TO WIPE UP ANY SPILLS.

. Replace and snugly secure the oil drain plug.

. Locate the "oil filler" (Figures 5 and 6) and remove it with a screwdriver.

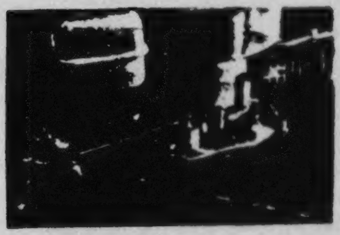


Figure 5

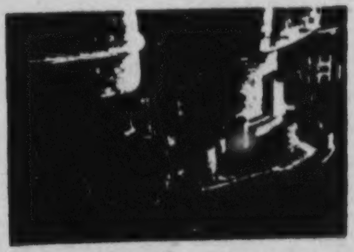


Figure 6

. Place the funnel in the opening and refill the crankcase using clean oil. Oil capacity is approximately 1½ pints. Figure 7.

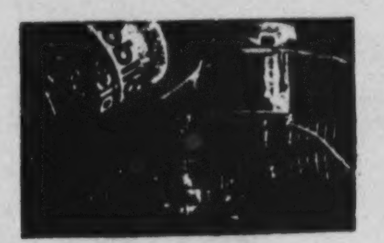


Figure 7

. Replace the oil filler plug securely.

SECOND ACTIVITY:

* Remove and tape spark plug wire as described earlier.

. Locate and remove the fuel line from the gasoline tank. Figure 8.

Figure 8

- Remove the fuel tank with a steady upward pull as shown in Figures 9 and 10.

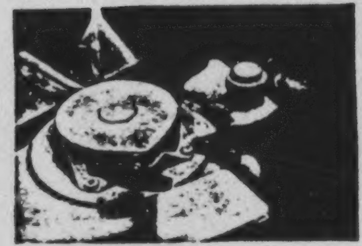


Figure 9

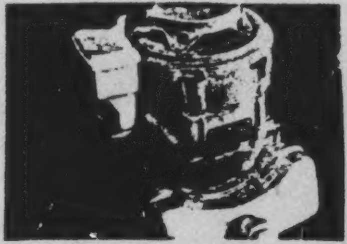


Figure 10

- Check tank for cracks and inspect tank outlet for debris that may have clogged it. Remove any foreign matter in tank and replace.

THIRD ACTIVITY:

- Locate and remove the air cleaner cover and filter as shown in Figures 11, 12 and 13.

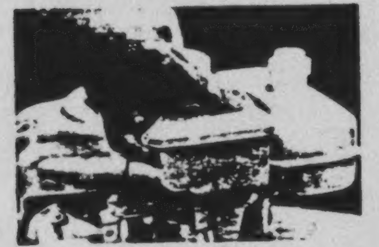


Figure 11

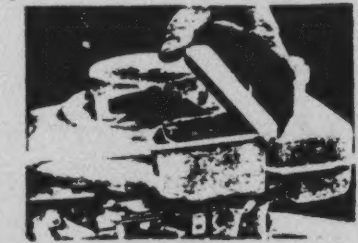


Figure 12

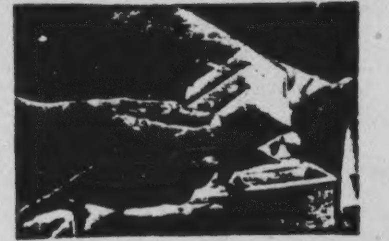


Figure 13

- Place about one pint of water and ½ capful of soap solution in the wash pan.
- Thoroughly wash out the filter and drain by squeezing between paper towels. Figures 14 and 15.

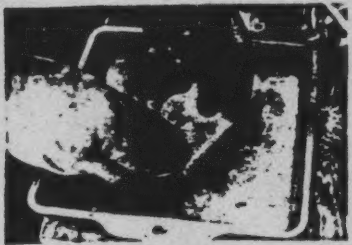


Figure 14

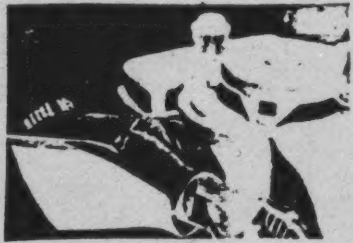


Figure 15

- Place 25 to 30 drops of oil on the filter and squeeze to distribute and remove excess oil. This operation should be completed over the wash pan. Figure 16.

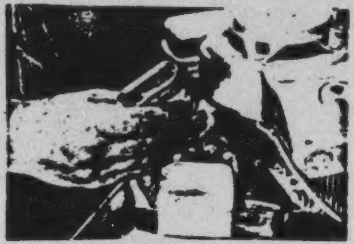
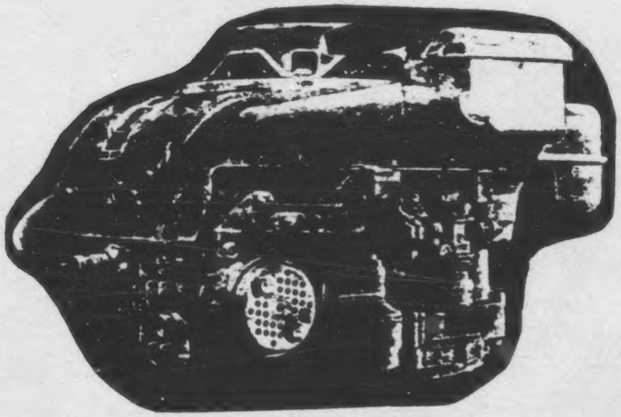


Figure 16

- Replace the filter and snap the cover securely in place.
- Call the instructor.

EXPLORING

EXPEDITION 4



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EXPEDITION 4

4. REMOVE, INSPECT, AND ADJUST IGNITION POINTS

OBJECTIVE:
When you have completed this exercise you will be able to remove, inspect, and adjust the ignition points of a small gasoline engine.

FIRST ACTIVITY:

. Remove and tape the spark plug lead wire as described earlier (Figure 1).

SECOND ACTIVITY:

. Remove the spark plug lead wire from its clip on the engine shroud (Figure 2).

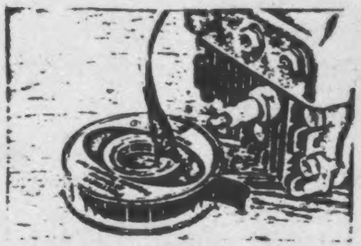

Figure 1

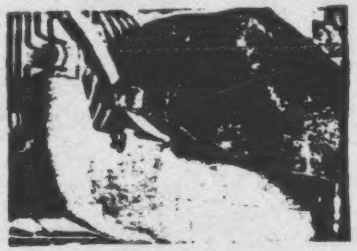

Figure 2

. Remove the air intake tube from the air filter and engine shroud (Figures 3 and 4).

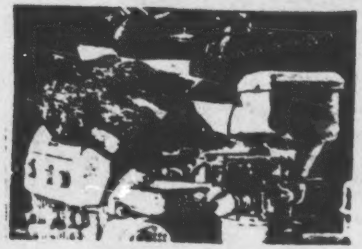

Figure 3

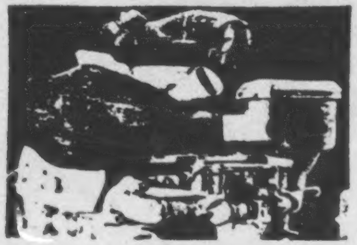

Figure 4

- Select the ½" socket and ratchet from the tool board and remove the three bolts from the front of the engine shroud (Figures 5 and 6).

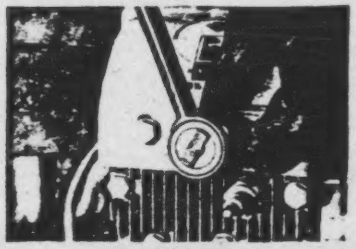

Figure 5

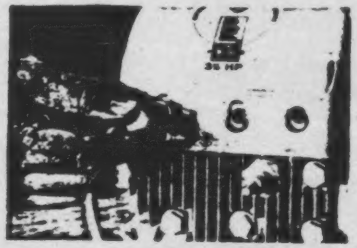

Figure 6

- Remove the fuel tank and gas line.
- Select the 7/16" socket and ratchet from the tool board and remove the two bolts securing the back of the engine shroud (Figure 7).

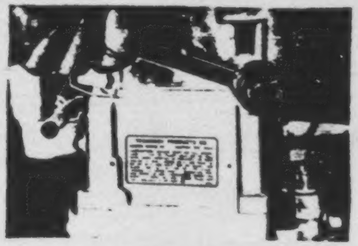

Figure 7

- Remove the engine shroud (Figure 8).

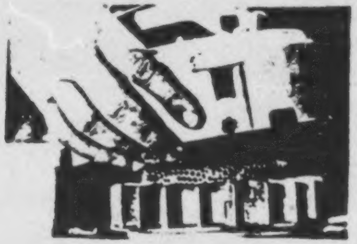

Figure 8

- Select the 11/16" socket, breaker bar and flywheel removing tool from the tool board.
- Using Figure 9 as a guide, remove the flywheel nut. Remember counterclockwise ↺ loosens and clockwise tightens the nut. ↻

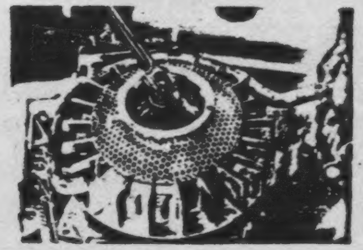

Figure 9

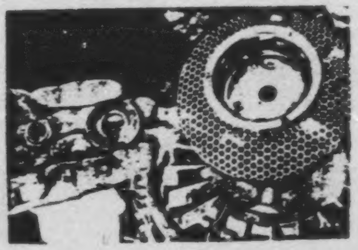

Figure 10

- Remove the nut, washer, and screen (Figure 10).
- Locate the flywheel knock-off tool and safety goggles. After placing the goggles over your eyes, screw the flywheel removing tool onto the threaded flywheel shaft (finger tight only). (Figures 11 and 12)

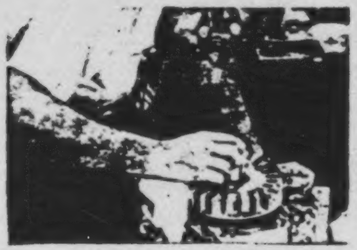

Figure 11

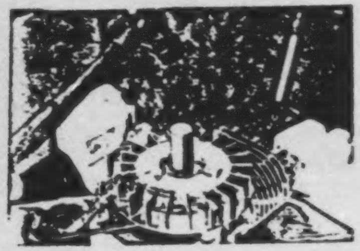

Figure 12

. Place the screwdriver under the flywheel and rap the flywheel knock-off tool while prying the flywheel upward. See Figure 13 below.

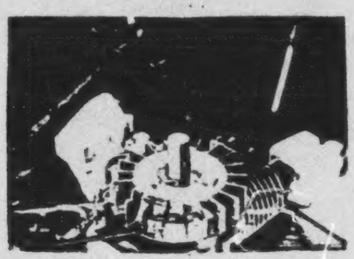

Figure 13

. Remove the flywheel (Figure 14).

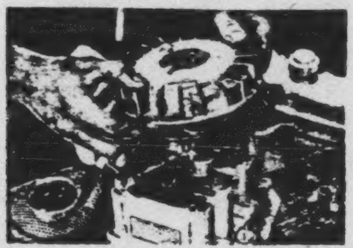

Figure 14

. Select the pliers from the tool box and remove the spring, cover and gasket from the ignition point case (Figures 15 and 16).

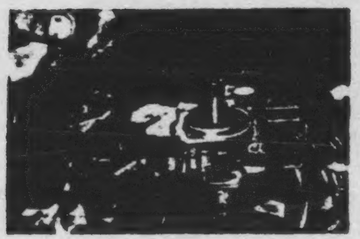

Figure 15

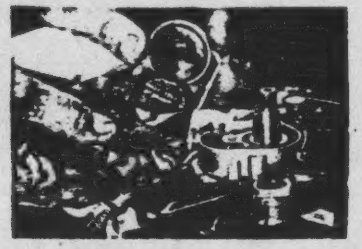

Figure 16

. Locate the ignition points and observe their opening and closing action while rotating the weighted power shaft in clockwise direction (Figures 17, 18, and 19).

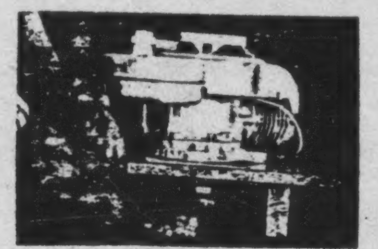

Figure 17

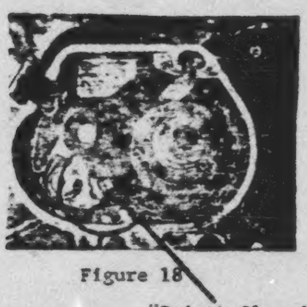

Figure 18

"Points Closed"

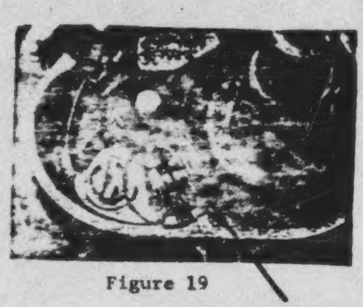

Figure 19

"Points Open"

. Turn the weighted power-shaft until the "points" are open as wide as possible (Figure 19).

. Select the flat feeler gauge from the tool board. (Make sure the gauge is free of dirt or oil.) Find the blade marked .020 thousandths and measure the point gap. The gauge should slide through the points with a slight drag. If this is not the case the retaining screw should be loosened which will allow the point mechanism to be adjusted.

. When the proper .020 adjustment is obtained the set screw should be secured and the point setting checked again. (Figures 20, 21, and 22)

Figure 20

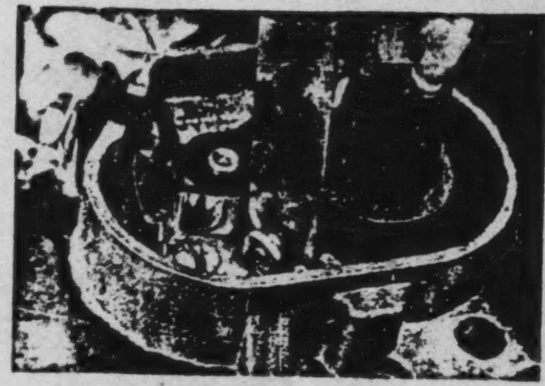

Figure 21

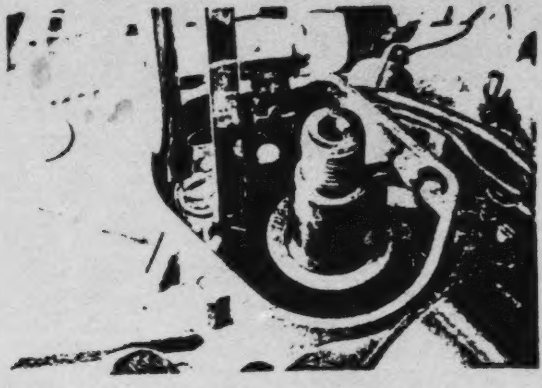

Figure 22

. The retaining cover, gasket, spring, flywheel, screen, washer and nut should be replaced. Torque the nut on the flywheel to 400 inch/pounds. Replace the shroud and torque the bolts to 150 inch/pounds.

APPENDIX IV-10

CAREER EDUCATION WEEK WORKSHOP: AN OPERATIONAL PROCEDURES HANDBOOK

CAREER EDUCATION WEEK WORKSHOP: AN OPERATIONAL PROCEDURES HANDBOOK

I. Introduction

During the week of April 12, 1976, Seventh and Eighth graders took part in a Career Education Workshop to learn about the world of work. The program was planned and co-ordinated by Research Associates for Career Education, Dr. Clifford A. Baylis, Jr. and Mrs. Leona Sowers and the Principal, Sister Norma.

Approximately fifty-five workers from the Ebensburg area gave an hour of time to discuss their work experiences with the students. In this way students learned first hand, from real "Career Experts",about specific jobs within the fifteen Career Clusters as identified by the USOE (U.S. Office of Education).

In addition to the career workshop activities, a career film festival was conducted by Sister Brenda Ann. Other students were involved in individualized programmed learning tasks related to thirteen occupational areas. These provided them with "hands-on" learning experiences to increase career awareness. In addition, individualized learning stations were established by Mrs. LaVanche, Sister Brenda Ann, Mr. Uncapher, and Miss Meintel in mathematics, science, social studies and language arts.

The purposes of these activities were: to augment what students had already done in Career Education; to aid students in comprehension of the relationship between school learning and the world of work; and to increase student awareness of the variety of careers and resources for career information within the community.

II. Objectives

A. Project related objectives:

1. To increase community awareness of the role resource personnel play in Career Education and to demonstrate this role in a school.
2. To provide a starting point for a "Career Education Community Advisory Committee" for the purpose of curriculum infusion of career related skill and tasks at middle/secondary grade levels.
3. To provide an opportunity for selected resource personnel to share career knowledge and experiences with children.

B. Student Objectives:

1. To increase student awareness of:
   - The variety of jobs within their own community;
   - The specific skills and training associated with at least five selected jobs;
   - The decision making process as related to career choices;
   - The resources for career information within their own community;
   - The relationship between school tasks and job skills and requirements,and
   - Personal competencies (cognitive and affective) as related to careers.

III. Procedures

A. Role description for curriculum consultants:

- Design of a working outline for the development of the concept;
- Presentation of working outline to administration and school staff;
- Preparation and distribution of letter to parents explaining the concept and requesting participation as "career experts" (Attachment #1);
- Preparation and distribution of letter to community workers (Attachment #2);
- Personal contact with parents and community workers to include representative occupations from each of the fifteen USOE "Career Cluster" for the purpose of explicating specific role expectations (Attachment #3);
- Collection and reporting of responces identifying tentative dates and times;
- Preparation of tentative master schedule;
- Confirmation of specific dates and times with all career experts;
- Preparation of master lists and conversion into

student choice sheet (Attachment #4);

- Identification of teacher tasks related to additional activities to compliment "career experts" participation;
- Presentation to students of student choice sheet with brief description of each job title offering each student five choices (Attachment #4);
- Preparation cf a 55 x 80 cell matrix with job titles and student names on vertical and horizontal axes (Attachment #5), thus forming the master schedule;
- Preparation of news release announcing "Career Education Workshop" (Attachment #6);
- Preparation of meeting room to accomodate multi-small group meetings with "career experts";
- Final meeting with teachers to complete operational plane;
- Contracting photographer;
- Notification of news media (newspaper and television);
- Coordination of all operational particulars;
- Workshop follow-up activities included:
    - composition and distribution of thank-you letters to "career experts"(Attachment #7),
    - design and implementation of oral and written evaluation session with all participating students and teachers (Attachment #8),
    - preparation of news releases with pictures (Attachment #9),
    - distribution of booklet "Eighth Grade Looks at the World of Work" to all participants and administrative personnel in the local school districts and the Intermediate Unit.(Attachment #10)
- Analyses and interpretation of evaluation data.

B. Role description for teachers:

- Design of supplementary learning activities to complement "career expert" meetings;
- Preparation of "Career Cluster" posters and decoration of meeting room;
- Establishment of individualized self-instructional learning stations in each participating teachers' subject concentration;
- Identification of "floating teacher of the day" to coordinate student movement;
- Design and development of "Career Workshop Discussion Guide" (Attachment #11);
- Design and implementation of film festival activities using "Fascinating World of Work"-Career Awareness Series from National Career Consultants, Inc. (Attachment #12) and related Career Awareness films from Guidance Associates, Inc.;
- Design of follow-up activities in specific subject areas;
- Participation in oral evaluation sessions.

C. Role description for "Career Experts":

- Discussion with small groups of students of the following topics:
    - What is your job title or description?
    - Briefly describe what you do.
    - What aptitudes or skills are important for your job?
    - Do you work with things, data or people most of the time? How do you feel about that?
    - What do you consider the best points of your job?
    - Is your job personally rewarding and fulfilling? Do you enjoy going to work? Do you recommend it as one of the alternatives students should consider?
    - You may want to touch upon the financial aspect. Do you consider the pay to be adequate, very good, unsatisfactory?

- What is the outlook? Will this type of employment exist when these students enter the world of work?

- What changes in equipment, automation, personnel, training requirements have you experienced in the time you have been in this field?

- What training is required? (High School? Trade School? College? Apprenticeship? Graduate degrees?).

- Is this field difficult to enter? (Union membership, professional school entrance quotas, etc.)

- How does this type of career relate to what these students do now in school? (School Subjects and Attitudes).

- General information on working conditions, bosses, employees, etc.

D. Role description for teacher aides:

. making phone contact one day preceding workshop appointment for each "career expert" to confirm specific time;

. provision of supporting equipment such as audio-visual to facilitate "career expert" presentation;

. manning of refreshment area;

. manning of Singer Vocational Evaluation System Learning Carrels (Attachment #13);

. Providing assistance to "teacher-role" function as described above,and

. providing technical assistance to eighth grade students in preparation of booklet "Eighth Grade Looks at the World of Work" (Attachment #10).

IV. Evaluation

A. Project related objectives:

. Third party evaluators (ERANDA) report as discussed in Chapter V provides substantive evidence of achievement of projcet related objectives as stated in section II of this appendix. Comments and data are summarized here:

> Parents were involved in curriculum development and served as resource persons. The community involvement culminated during the week of April 12 when 90 students at Holy Name School took part in a career workshop. Approximately 55 workers from the Ebensburg area visited the school to discuss their work and experience with 7th and 8th grade students. The students had a Career Education Film Festival during this period as well. In addition, six field trips were conducted to allow students on-site work experience. (ERANDA, An Evaluation, May 1, 1976)

B. Student Objectives

. In order to determine student satisfaction with the Career Week, a questionnaire was administered. The summary of results are presented in Table I.

ATTACHMENTS: APPENDIX IV-10

1. Letter to parents
2. Letter to community workers
3. Memo to Career Workshop participants
4. Student choice sheet
5. Excerpt from scheduling matrix
6. News release announcing "Career Education Workshop"
7. Thank-you letter to "career experts"
8. Rating form for "Career Education Workshop"
9. News releases
10. Booklet- "Eighth Grade Looks at the World of Work"
11. Career Workshop Discussion Guide
12. Excerpts from "Fascinating World of Work" film series
13. Singer Exploration Program - student selection form

TABLE I*

REACTION OF HOLY NAME STUDENTS TO THEIR PARTICIPATION IN CAREER WEEK

	7th Grade (N = 40)			8th Grade (N = 38)	
Statement	% Yes	% Maybe	% No	% Yes	% Maybe
1. My overall interests in these career areas have increased.	78.9	21.1	0	94.7	5.3
2. I know more about job skills because of these experiences.	92.3	5.1	2.6	94.7	5.3
3. I know about more jobs related to these career areas.	41.0	51.3	7.7	55.3	42.1
4. I would enjoy doing these types of work as a future career.	22.5	77.5	0	18.4	71.0
5. These experiences have helped me think about my future career.	82.0	15.4	2.6	84.2	15.8
6. I feel that this program was a valuable experience for me.	97.4	2.6	0	94.7	5.3

* Excerpted from An Evaluation, ERANDA, May 1976

ATTACHMENT #1

HOLY NAME SCHOOL
215 West Horner Street
Ebensburg, Pa. 15931

March 26, 1976

Dear Parent:

Students at Holy Name School are taking part in a Career Education program to learn about the world of work in their community.

We are planning a Career Workshop for the week of April 12th 1976. We are asking workers from the community to visit our school to discuss their work experiences. In this way students may learn first hand about specific jobs within a variety of occupational areas. As participants in the Career Education program our students have done research and have had "hands on" work experiences which should facilitate their ability to ask questions.

We would like to have the parents of our students be our first visiting experts. Would you be willing to come to our school and talk to a small group of students about your occupation? We need experts to tell about the training requirements, the work environment and the unique tools or machines used.

Please fill out and return this form. You will be contacted to arrange a definite time and date. We are interested in all occupations.

Sincerely,

Sr. Norma Zanieski, Principal

Sr. Norma Zanieski, Principal

- -

Name ______________________ Phone ____________

Occupation ______________________________

It would be most convenient for me to be at your school on (days and times).

April 12, 1976 ______________________________

April 13, 1976 ______________________________

April 14, 1976 ______________________________

April 15, 1976 ______________________________

Career Education Consultants
Dr. Clifford A. Baylis Jr.
Mrs. Leona Sowers

ATTACHMENT # 2

ADMIRAL PEARY AREA VOCATIONAL-TECHNICAL SCHOOL

[illegible]
CHIEF SCHOOL ADMINISTRATOR
[illegible]
EXECUTIVE DIRECTOR OF VO. ED.
[illegible]
DIRECTOR OF VOCATIONAL EDUCATION

ROUTE 422 W. R. D. 3
EBENSBURG, PENNSYLVANIA 15931
PHONE (814) 472-6456

[illegible]
ASSOCIATE DIRECTOR FOR RESEARCH

RESEARCH COORDINATING UNIT

March 26, 1976

Students at Holy Name School are taking part in a Career Education program to learn about the world of work in their community.

We are planning a Career Workshop for the week of April 12th 1976. We are asking workers from the community to visit our school to discuss their work experiences. In this way students may learn first hand about specific jobs within a variety of occupational areas. As participants in the Career Education program our students have done research and have had "hands on" work experiences which should facilitate their ability to ask questions.

Would you be willing to come to our school and talk to a small group of students about your occupation? We need experts to tell about the training requirements, the work environment and the unique tools or machines used.

Please fill out and return this form. You will be contacted to confirm time and date. We are interested in all occupations.

Sincerely,

Dr. Clifford A. Baylis, Jr.
Mrs. Leona Sowers
Research Associates for Career Education

- -

Name ______________________ Phone ____________

Occupation ______________________________

It would be most convenient for me to be at your school on (days and times).

April 12, 1976 ______________________________

April 13, 1976 ______________________________

April 14, 1976 ______________________________

April 15, 1976 ______________________________

ATTACHMENT #3

FROM THE DESK OF *DR. CLIFFORD A. BAYLIS, JR.*

TO: Career Workshop Participants

DATE: 31 March 1976

SUBJECT: Career Workshop For Week of April 12, 1976 (Holy Name School, seventh and eighth grade)

Thank you very much for your willingness to participate in our program. Without your cooperation this phase of our program could not exist.

The objective of these sessions is not to get students to make career choices, but rather to help elementary students realize that everyone works, that all useful work is honorable. We hope to acquaint them with the wide variety of occupations that exist (there are many things to be besides cowboys, firemen, nurses, and teachers) and make their present schooling more relevant to their future.

Your company or business may have some materials they would furnish for you to bring along, perhaps some pamphlets. You might check with your public relations office. Please bring your tools or whatever you work with. Certainly, if you wear a uniform or special clothing of any kind (welding hood?), bring or wear it if you can. Here are the kinds of things we would like to hear about:

- What is your job title or description?
- Briefly describe what you do.
- What aptitudes or skills are important for your job?
- Do you work with things, data or people most of the time? How do you feel about that?
- What do consider the best points of your job?
- Is you job personally rewarding and fulfilling? Do you enjoy going to work? Do you recommend it as one of the alternatives students should consider?
- You may want to touch upon the financial aspect. Do you consider the pay to be adequate, very good, unsatisfactory?
- What is the outlook? Will this type of employment exist when these students enter the world of work?
- What changes in equipment, automation, personnel, training requirements have you experienced in the time you have been in this field?
- What training is required? (High School? Trade School? College? Apprenticeship? Graduate degrees?).
- Is this field diffiuclt to enter? (Union membership, professional school entrance quotas, etc.
- How does this type of career relate to what these students do now in school? (School Subjects and Attitudes).
- General information on working conditions, bosses, employees, etc.

ADMIRAL PEARY AREA VOCATIONAL TECHNICAL SCHOOL
Research Office (814) 472-6456

ATTACHMENT # 4
STUDENT CHOICE SHEET - CAREER WORKSHOP

Please indicate first, second, and third choices

Monday, April 12, 1976

9:00 ____ Borough Police
9:00 ____ Assistant Forest Ranger
9:00 ____ Librarian

10:00 ____ District Manager and Marketing Representative - Penelec
____ Agricultural Extension Agent - 4-H Leader
____ Retail Merchant
____ State Police Trooper

11:00 ____ Barber
____ Seamtress and tailor
____ Professional Musician

1:00 ____ Caseworker/Counselor
____ Pharmacist
____ Borough Manager
2:00 ____ Nurse
____ Marketing Representative Petroleum Industry
____ Cook

Tuesday, April 13, 1976

9:00 ____ Senior Teller, U.S. Bank
____ Mining Instructor
____ New and Used Car Sales & Mechanic
____ Farmer, Mechanic

10:00 ____ Vice-President Laurel Bank
____ Production Supervisor - Sewing Factory
____ Physical Therapist - Ebensburg State School
____ Personnel Analyst - Ebensburg State School

11:00 ____ Funeral Director
____ Television Reporter and Cameraman
____ Keypunch Instructor at Admiral Peary AVTS
____ Real Estate Sales Lady

1:00 ____ Automobile and Truck Mechanic
1:30 ____ Electrician
2:15 ____ Fire Chief
2:00 ____ Religious Vocations
____ Plumber
____ Sales Representative

Wednesday, April 14, 1976

9:00 ____ District Attorney
____ Civil Engineer
____ Secretary in Law Office
____ Appliance Repairman

10:00 ____ Assistant Bookkeeper - Sewing Factory
____ Administrative Assistant to Executive Director APAVTS
____ Refrigeration and Air Conditioning Technician

11:00 ____ Psychological Services Associate I
____ Nurse
____ College Professor
11:30 ____ Bus Dispatcher

1:00 ____ Photographer and News Reporter
____ Manager of Acme Supermarket
____ Human Services Aid
____ Chiropracter

Name ____________________ Section

ATTACHMENT #5

7-13

		Borough Police	Assistant Forest Ranger	Librarian	District Manager and Marketing Representative	Agricultural Extension Agent - 4-H Leader	State Police Trooper needs screen	Barber	Seamtress and tailor	State Police Trooper	Caseworker/Counselor	Pharmacist
		9	11	7	15	11	14	8	9	14	9	13
STUDENT		9:00			10:00			11:00			1:00	
Barber, James	6						✓	✓				
Brandy, William	6	✓					→					
Clauto, Robert	6	✓					→					
Connell, John	6									✓		
Deskevich, David	6		✓									
Eckenrode, Douglas	6				✓							
Frank, Patrick	6		✓					✓				
Holmes, Christopher	6									✓		
Knowlton, Peter	6					✓						
Leary, William	6									✓		
Link, David	6					✓						
Natcher, Thomas	6					✓						✓
O'Hara, David	6					✓						
Ott, Robert	6		✓		✓							
Peduzzi, Christopher	6								✓			
Simmers, Dennis	6	✓					→				✓	

ATTACHMENT #6

COMMUNITY BRINGS CAREER EDUCATION TO HOLY NAME SCHOOL STUDENTS*

Sister Norma, Principal, has announced that during the week of April 12, 1976 students at Holy Name School will be taking part in a Career Education Workshop to learn about the world of work.

Approximately fifty workers from our community, Ebensburg, have agreed to give an hour of time to discuss their work experiences with seventh and eighth grade students. It is hoped that in this way students may learn first hand, from real "Career Experts," about specific jobs within fourteen different Career Clusters as identified by the USOE (U.S. Office of Education).

In addition to the career workshop activities a Career Film Festival is planned. Other students will also be involved in individualized programmed learning tasks related to thirteen occupational areas. These provide them with "hands-on" learning experiences to increase their career awareness.

The purposes of these activities are: to augment what students have already done in Career Education; to aid students in comprehension of the relationship between school learning and the fascinating World of Work; and to make students aware of the variety of careers and resources for career information with their own community.

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* published in Mountaineer Herald and Catholic Register first week of April, 1976

ATTACHMENT # 7

ADMIRAL PEARY AREA VOCATIONAL-TECHNICAL SCHOOL

MARIO J. CREANT
[illegible] SCHOOL ADMINISTRATOR
BRYAN V. FLOOK
[illegible] DIRECTOR OF VO. ED.
JOHN BURIAK
[illegible] OF VOCATIONAL EDUCATION

ROUTE 422 W., R. D. 2
EBENSBURG, PENNSYLVANIA 15931
PHONE (814) 472-6456

EDWARD H. LAREAU
ASSOCIATE DIRECTOR FOR RESEARCH

RESEARCH COORDINATING UNIT

14 April 1976

I would like to thank you on behalf of the students and faculty of Holy Name School as well as from the consultants from the Admiral Peary Research Office for your participation in the Career Education Workshop.

The children were very excited and interested in what you had to offer them from your "world of work."

Gratefully yours,

Sister Norma Zanieski, C S J

Sister Norma Zanieski C. S. J.
Principal

Clifford A. Baylis Jr. Ph.D.

Clifford A. Baylis Jr., Ph.D.
Research Associate for Career Education

Leona Sowers

Mrs. Leona Sowers
Research Associate for Career Education

SNZ/jg

ATTACHMENT #8

Career Education Workshop Rating Form

Rating Form for the Job Discussion Experience:

Section A: General Reactions

Please indicate your feelings about the following statements:

	Yes	Maybe	No
1. My overall interests in these career areas have increased.	1	2	3
2. I know more about job skills because of these experiences.	1	2	3
3. I know about more jobs related to these career areas.	1	2	3
4. I would enjoy doing these types of work as a future career.	1	2	3
5. These experiences have helped me think about my future career.	1	2	3
6. I feel that this program was a valuable experience for me.	1	2	3

Section B: Specific Reactions to a Selected Experience
Job Title ____________________

Complete the following sentences.

1. For me this experience has been ____________________

2. I was surprised to learn that ____________________

3. I used to think that ____________________

4. But, now I think that ____________________

Baylis/Sowers 4/76

ATTACHMENT #9

DATE: 5 May 1976

SUBJECT: News Clippings.

Enclosed are copies of News Articles resulting from the Career Education Workshop conducted at Holy Name during the week of April 12. There are clippings from the following papers:

- Altoona Mirror (4/27/76)
- Johnstown Tribune-Democrat (4/28/76)
- Nanty-Glo Journal, Mainliner and Dispatch (4/28/76)
- The Altoona Catholic Register (4/23/76)
- Mountaineer Herald (4/29/76)

ADMIRAL PEARY AREA VOCATIONAL TECHNICAL SCHOOL
Route 422 W, R.D. #2
Ebensburg, Pa. 15931
Research Office (814) 472-6456
School (814) 472-6490

NANTY GLO JOURNAL, MAINLINER & DISPATCH, WEDNESDAY APRIL 28, 1976 . . 3

CAREER WORKSHOP: Dave West, cameraman, and Karen Nash, reporter, both from WTAJ-TV 10, Altoona, speak to students at the Holy Name School in Ebensburg during a "Career Education Workshop" during the week of Apr. 12. Ninety students took part in the workshop, which featured talks by approximately 35 workers from the area concerning their work experiences.

Johnstown Tribune-Democrat, Wednesday, April 28, 1976

90 Students At Workshop

EBENSBURG — Ninety students at the Holy Name Catholic School took part in a career education workshop coordinated by Dr. Clifford A. Baylis, Jr., a member of Research Associates for Career Education and assistant professor of education at St. Francis College, Loretto, Mrs. Leona Sowers, and Sister Norma, principal of the school.

Members of the local business community discussed career opportunities with Grade 7 and 8 students.

A career film festival was conducted.

Community Workers Talk To Students About Careers

EBENSBURG — During the week of April 12, 90 students at Holy Name School, took part in a Career Education Workshop to learn about the world of work. The program was planned and coordinated by Research Associates for Career Education, Dr. Clifford A. Bayliss Jr. and Mrs. Leona Sowers, and the principal, Sister Norma.

Approximately 55 workers from the Ebensburg area gave an hour of time to discuss their work and experiences with 7th and 8th grade students. In this way students learned firsthand, from real career experts, about specific jobs within the 15 career clusters as identified by the U.S. Office of Education.

In addition to the career workshop activities, a career film festival was conducted. Other students were involved in individualized programmed learning tasks related to 13 occupational areas. These provided them with "hands on" learning experiences to increase career awareness. In addition, individualized learning stations were established in mathematics, science, social studies and language arts.

The purpose of these activities was to augment what students have already done in career education, to aid in comprehension of the relationship between school learning and the world of work, and to make students aware of the variety of careers and resources for career information within the community.

People who participated in the workshop were:

Ralph Adams, manager of Ebensburg Acme Supermarket; Odrian Baylock, college professor, St. Francis College; Mrs. Emma Baylock, nurse; Joseph Berdomas, mining instructor; Leo Bender, beautician; Mrs. Lucille Bowen, school nurse; William C. Bumford, Ebensburg borough manager.

James Campbell, marketing representative petroleum industry; Wayne Collins, computer technology instructor; John Connell, Ebensburg water treatment plant; Mrs. Pam Cotlar, retail merchant, J. Covitch and Son; Mrs. Chris Craig, human services aid, City-County Clinic; Mrs. Susan Cramer, senior teller, U.S. Bank; Robert Davies, assistant district forester; Trooper DiNardo, State Police Trooper, Greensburg, Chief Ross Dixon, Ebensburg Borough Police; Earl Eck, Barber-Hair Stylist; Robert Einodshofer, district manager, Penelec; Francis Farabaugh, refrigeration technician.

Mrs. Cathy Fitzpatrick, librarian, Father Fleming and Sister Janice, religious vocations; Mrs. Louise Frank, bus dispatcher, Central Transportation Co.; Vito Don Giovanni, psychological services associate I City-County Clinic; Mrs. June Griffith, real estate saleslady, Strout Realty; Dr. Quentin Hartwig, biological researcher; Richard Hoover, farmer-mechanic; Miss Paula Kane, secretary in law office; Steve Knowlton, sales representative.

Ms. Mary Kuntzman, assistant bookkeeper, Chateau Du Tricot Inc.; Edward F. Kuykendall, marketing representative, Penelec; Thomas G. Link, plumbing and heating; D. Gerard Long, Cambria County District Attorney; Jack Mechuta, automobile and truck mechanic; Robert Matevish, funeral director; Dean McKnight, vice president, Laurel Bank; Ms. Gloria Murcik, pharmacist, Tibbott's Pharmacy; Ms. Karen Nash, television reporter, WTAJ-TV 10.

Earl Neiderer, civil engineer, L. Robert Kimball and Associates; George Orner, agricultural extension agent-4-H leader; Michael Oyaski, appliance repairman, Home Appliance Co., Mrs. Joyce Remillard, seamstress and tailor; Dr. Raymond Scanlan, chiropractor; Russell Scanlan, electrician, Scanlan Electric Co.; Russell Scanlon, fire chief, Dauntless Fire Co.; Tim Sheridan, Caseworker-Counselor, City-County Clinic; Jack Showlin, personnel analyst, Ebensburg State School; George Susko, physical therapist, Ebensburg State School; Fred Switzler, Switzler Buick Inc.; Michael Tsikalas, Ebensburg Borough mayor; Spero Tsikalas, cook, High Way Diner, and David West, cameraman, WTAJ-TV 10.

WORKERS FROM EBENSBURG AREA told students what they did and what kind of preparation is needed for a wide variety of careers, so that they can choose courses for high school with one or more careers in mind. Jack Machuta, left, talked about his work as an auto-

---

Community Brings Career Education To Holy Name

Pictured above are participants in the Career Workshop held recently at Holy Name School, Ebensburg. The top photo shows John Neiderer learning about soldering and welding. The middle photo shows Mrs. Susan Cramer, a senior teller for the U.S. Bank, discussing her job with, left to right, Mary Jo Kimball, Claire Neville, Chris Westrick, and Brian Koontz. The bottom photo shows Mr. Fred Switzler of Ebensburg explaining new and used car sales and mechanics to, left to right, Ed Manberno, Kevin Long, and Donna Bender.

EBENSBURG — Students at Holy Name School, here, recently took part in a Career Education Workshop to learn about the world of work, according to Sr. Norma, principal.

Approximately 50 workers from the Ebensburg area gave an hour of time to discuss their work experiences with seventh and eighth grade students. The students had the opportunity to learn firsthand, from real "Career Experts," about specific jobs within 14 different Career Clusters as identified by the United States Office of Education.

In addition to the career workshop activities, a Career Film Festival was offered. Other students were involved in individualized programmed learning tasks related to thirteen occupational areas. These provide them with "hands-on" learning experiences to increase their career awareness.

The purposes of these activities was to augment what students have already done in Career Education; aid students in comprehension of the relationship between school learning and the fascinating World of Work and to make students aware of the variety of careers and resources for career information with their own community.

Community Brings Career Education to Holy Name School

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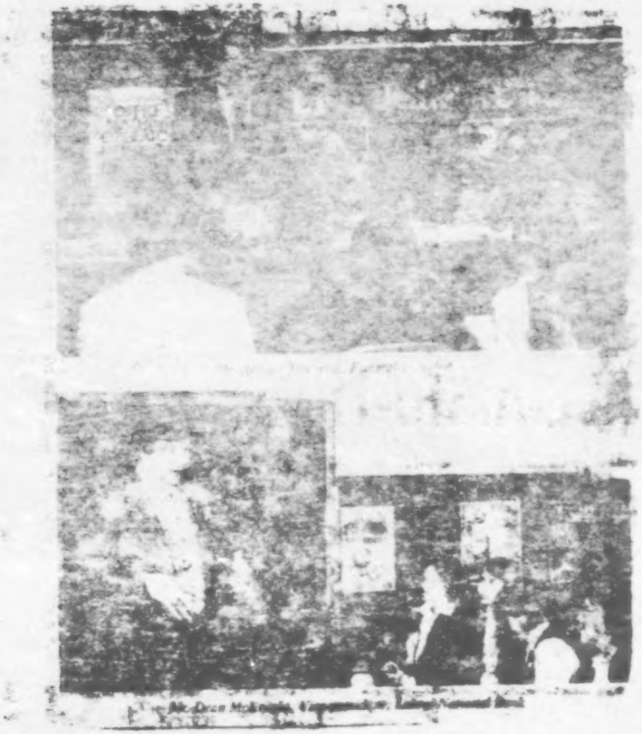
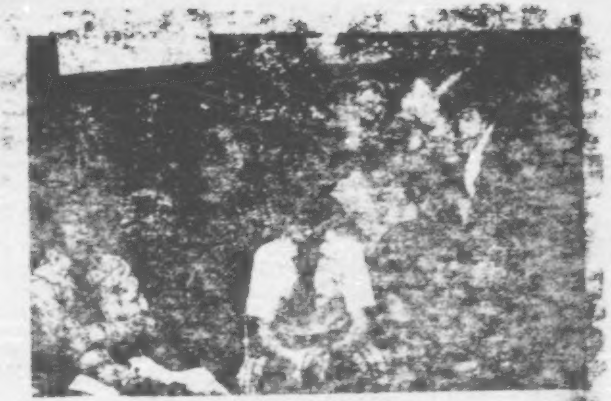


[illegible]

Mr. Dean [illegible], [illegible] National Bank



Mr. Jack Machuta, Mr. Robert Watson

Mr. Jack Machuta, Automobile and Truck Mechanic

[illegible] in a Career [illegible] Workshop to learn about the world of work. The program was planned and coordinated by Research Associates for Career Education, Dr. Clifford A. Baylis, Jr. and Mrs. Leona Sowers and the principal, Sister [illegible].

Approximately 55 workers from the Ebensburg area gave an hour of time to discuss their work experiences with seventh and eighth grade students. In this way, students learned first-hand from real "Career Experts" about specific jobs within the 15 Career Clusters as identified by the USOE (U. S. Office of Education).

In addition to the career workshop activities a career film festival was conducted.

Other students were involved in individualized programmed learning tasks related to thirteen occupational areas. These provided them with "hands-on" learning experiences to increase their career awareness. In addition, individualized learning stations were established in mathematics, science, social studies and language arts.

The purpose of these activities were to augment what students have already done in Career Education; to aid students in comprehension of the relationship between school learning and the world of work; and to make students aware of the variety of careers and resources for a career information within the community.

[illegible] Adams, [illegible] Anne [illegible], Dr. Adrian Baylis, college professor, St. Francis College; Mrs. Emma [illegible], nurse; Mr. Joseph [illegible], mining instructor; [illegible] Lee Bender, beautician; Mrs. Lucille Bogen, school [illegible]; Mr. William C. [illegible], [illegible] Ebensburg Borough [illegible]; Mr. James Campbell, [illegible] representative petroleum industry; Mr. Wayne Colli[illegible], computer technology instructor; Mr. John Con[illegible], Ebensburg water treatment [illegible]; Mrs. Pam Cotlar, retail merchant, J. Covitch and [illegible]; Mrs. Carla Craig, human services aid, City-County C[illegible]; Mrs. Susan Cramer, [illegible] teller, U. S. Bank.

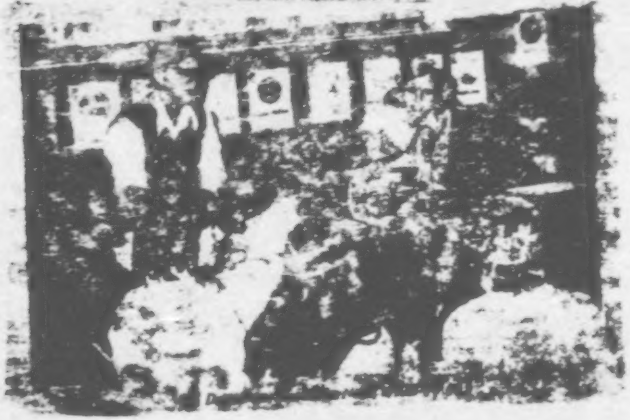
Mr. Robert Davies, assistant district forester; Trooper DiNardo, State Police troop [illegible], Greensburg; Chief Ross Dixon, Ebensburg Borough police; Mr. Earl [illegible], barber/hair stylist; Mr. [illegible]bert Ebersbacher, district manager, Penelec; Mr. Francis Formanga, refrigeration technician; Mrs. Cathy Fitzpatrick, librarian; Father Fleming and Sister Janice, religious vocations; Mrs. [illegible] Frank, bus dispatcher, Central Transportation Co.

Mrs. Jane Griffith, real estate saleslady, Stroll Realty; Dr. Quentin Hartwig, biological researcher; Mr. Richard Hoover, farmer, mechanic; Miss Paula Kane, secretary to [illegible] office; Mr. Steve Kasp[illegible], sales representative, [illegible] Inc.; [illegible] Keyes[illegible], [illegible] representative, Penelec; Mr. [illegible] G. Lim, plumbing and heating; Mr. D. Gerard Long, Cambria County District Attorney; Mr. Jack Machuta, automobile and truck mechanic; Mr. Robert [illegible]

[illegible], Mr. [illegible], [illegible] president [illegible]; Ms. Gloria Murch, pharmacist, Tibbott's Corner Drug Store; Ms. Karen [illegible], television reporter, [illegible] TV 10; Mr. Earl Neiderer, civil engineer, L. Robert Kimball and Assoc.; Mr. George Oader, agricultural extension agent, 4-H leader.

Mr. Michael Oyaski, [illegible] engineer, [illegible] Co., [illegible]

[illegible] and tailor; Dr. Raymond Scanlan, chiropractor; Mr. Russell Scanlan, electrician, Scanlan Electric Co.; Mr. Russell [illegible], fire chief, Dauntless Fire Co.; Mr. Tim Sheridan, caseworker/counselor, City-County Clinic; Mr. Jack Shoemaker, personnel analyst, Ebensburg State School; Mr. George Sosko, physical therapist, Ebensburg State School; Mr. Fred Switzler, Switzler [illegible] Inc.; Mr. Michael [illegible], Ebensburg Borough mayor; Mr. [illegible], [illegible] High Way Dept.; [illegible] West, [illegible], WTAJ TV 10.



ATTACHMENT #10

EIGHTH GRADE LOOKS AT THE WORLD OF WORK

THE EIGHTH GRADE LOOKS at the WORLD of WORK.

INTRODUCTION

During the week of April 12, 1976, Seventh and Eighth graders took part in a Career Education Workshop to learn about the world of work. The program was planned and co-ordinated by Research Associates for Career Education Dr. Clifford A. Baylis, Jr. and Mrs. Leona Sowers and the Principal, Sister Norma.

Approximately fifty-five workers from the Ebensburg area gave an hour of time to discuss their work experiences with the students. In this way students learned first hand, from real "Career Experts," about specific jobs within the fifteen Career Clusters as identified by the USOE (U.S. Office of Education).

In addition to the career workshop activities, a career film festival was conducted by Sister Brenda Ann. Other students were involved in individualized programmed learning tasks related to thirteen occupational areas. These provided them with "hands-on" learning experiences to increase career awareness. In addition, individualized learning stations were established by Mrs. LaVanche, Sister Brenda Ann, Mr. Uncapher, and Miss Meintel in mathematics, science, social studies and language arts.

The purposes of these activities were: to augment what students had already done in Career Education; to aid students in comprehension of the relationship between school learning and the world of work; and to increase student awareness of the variety of careers and resources for career information within the community.

written by:
Dr. Clifford A. Baylis, Jr.
Mrs. Leona Sowers
Research Associates
for Career Education

Principal:

Sister Norma

Eighth Grade Teachers:

Mrs. Shirley LaVanche
Miss Joan Meintel

Technical Assistance:

Mrs. Ellen Baylis

Photographer:

Mr. Wayne Collins

DESIGN AND LAYOUT

Stephanie Fedorka

Mary Jo Kimball

John Niederer

Timothy Sloan

Marine Science

All jobs concerning the oceans and the plants animals, and minerals in the oceans. Fishing growing, studying, exploring, and harvesting.

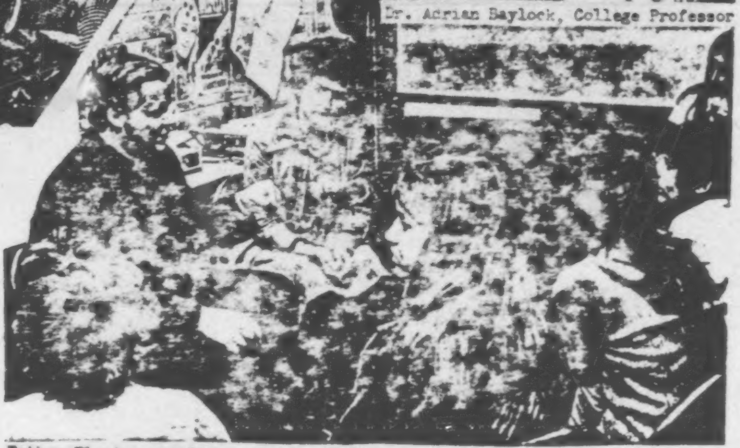
Dr. Quentin Hartwig, Biological Researcher

Fine Arts and Humanities

Creating, writing, performing, and studying. Jobs with music, plays, dance, poetry, art, novels, history, and languages.

3

Dr. Adrian Baylock, College Professor



Father Fleming and Sister Janice, Religious Vocations

3

Mr. George Susko, Physical Therapist

Dr. Raymond Scanlan, Chiropractor

Mrs. Lucille Bowen, School Nurse

CAREERS
in
NURSING

Mrs. Emma Baylock, Nurse

FIELD TRIP TO LEE HOSPITAL, JOHNSTOWN

SEEING
LEARNING

ENJOYING

Photos by Kevin Long

Pharmacist

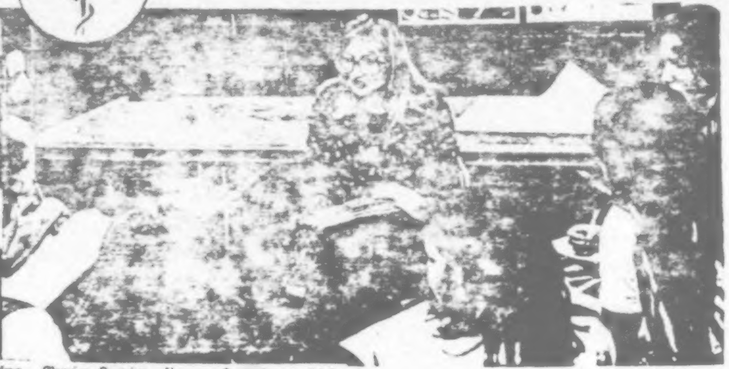
Ms. Gloria Murcik

Vito Don Giovanni
Psychological Services Associate I

Health

Care and repair of the human body and mind.

Tim Sheridan, Caseworker/Counselor



Mrs. Chris Craig, Human Services Aide

5

5

Mr. David West, Cameraman, WTAJ TV

Mrs. LaVanche
Our teacher of
Communication
Skills

Communications and Media

Getting information to people [illegible] with telephones, telegraphs, magazines, newspapers, books, radio and television

where should
I be now??

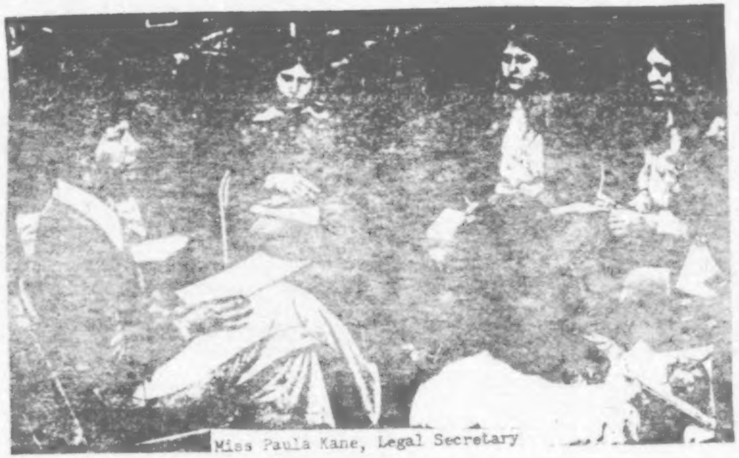
Photographers

Ms. Jeannie Bohenace & Mr. Mike [illegible]

Ms. Karen Nash, Television Reporter WTAJ TV

6

A WORLD OF WORK


Miss Paula Kane, Legal Secretary

Mrs. Susan Cramer, Senior Bank Teller

Business and Office

Typing, storing, studying, and distributing records of people's work. Jobs with typewriters, computers, copying machines and records.

Mr. Jack Shovlin, Personnel Analyst

Ms. Mary Kuntzman, Assistant Bookkeeper

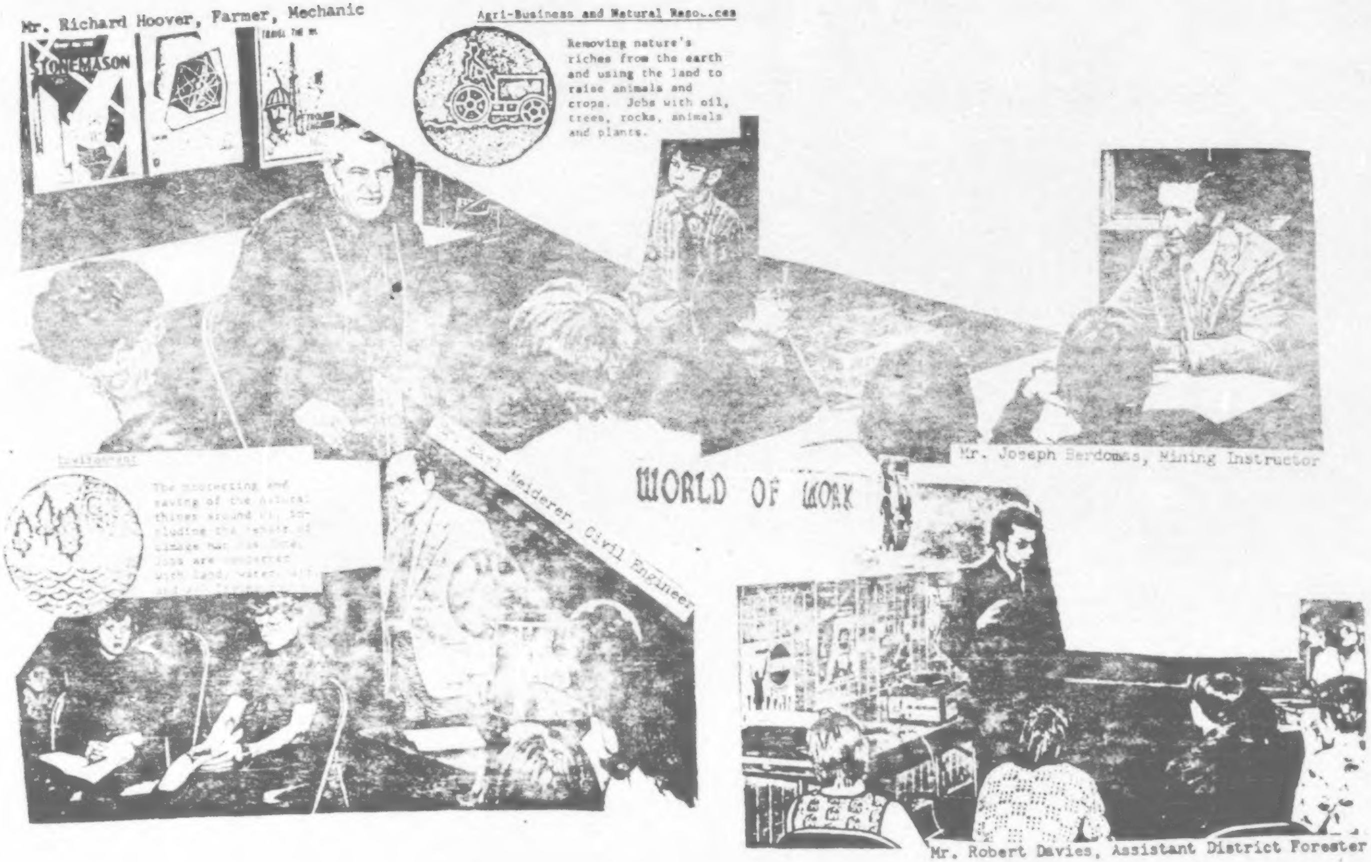
Mr. Edward F. Kuykendall, [illegible]

Mr. Fugene DiNardo,

State Police Trooper

Mrs. Cathy Fitzpatrick, Librarian

Mr. D. Gerard Long, District Attorney



Mr. Richard Hoover, Farmer, Mechanic

Agri-Business and Natural Reso..ces

Removing nature's riches from the earth and using the land to raise animals and crops. Jobs with oil, trees, rocks, animals and plants.

Mr. Joseph Berdomas, Mining Instructor

Environment

The protecting and saving of the natural things around us, including the [illegible] of damage man has done. Jobs are concerned with land, water, air [illegible]

[illegible] Neiderer, Civil Engineer

WORLD OF WORK

Mr. Robert Davies, Assistant District Forester

Transportation

Moving people and goods from one place to another. Airlines, railroads, ships, trucks, and buses.

Construction

All activities in building. Jobs with cement, plastic, wire, and tile.

Mr. Jack Machuta, Auto and Truck Mechanic

Mrs. Louise Frank, Bus Dispatcher

Mr. Fred Switzler, Switzler Buick Inc.

Mr. Russell Scanlan, Electrician

Mr. Thomas G. Link, Plumbing and Heating

10

Mrs. Joyce Remillard, Seamstress & Tailor

Personal Service

Working on or near individual people or animals. Barbering, hairstyling, undertaking, pet grooming, boarding, and training.

Mr. Earl Eck

Barber/Hair Stylist

Hospitality and Recreation

Jobs related to spare or leisure time activities. Jobs in parks, hotels, clubs, sports, amusements, and hobbies.

Mr. George Orner

Agricultural Extension Agent

Mrs. Leo Bender,

Beautician

Mr. Robert Matevish, Funeral Director

Manufacturing

The making of anything not found in nature. Designing, assembling, producing, packaging, advertising, and transporting.

Mr. Steve Knowlton, Sales Representative

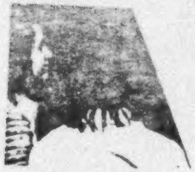
Marketing and Distribution

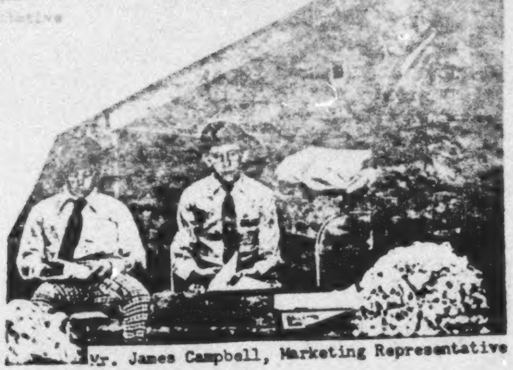
Getting goods and services to the customer. Jobs in buying from the manufacturer, shipping, storing, advertising, and selling.

Mr. Dean McKnight

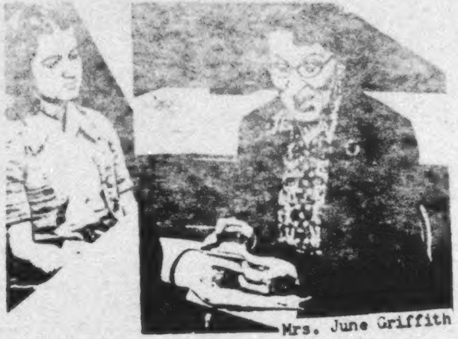
Vice President, Laurel Bank

Real Estate Salesperson



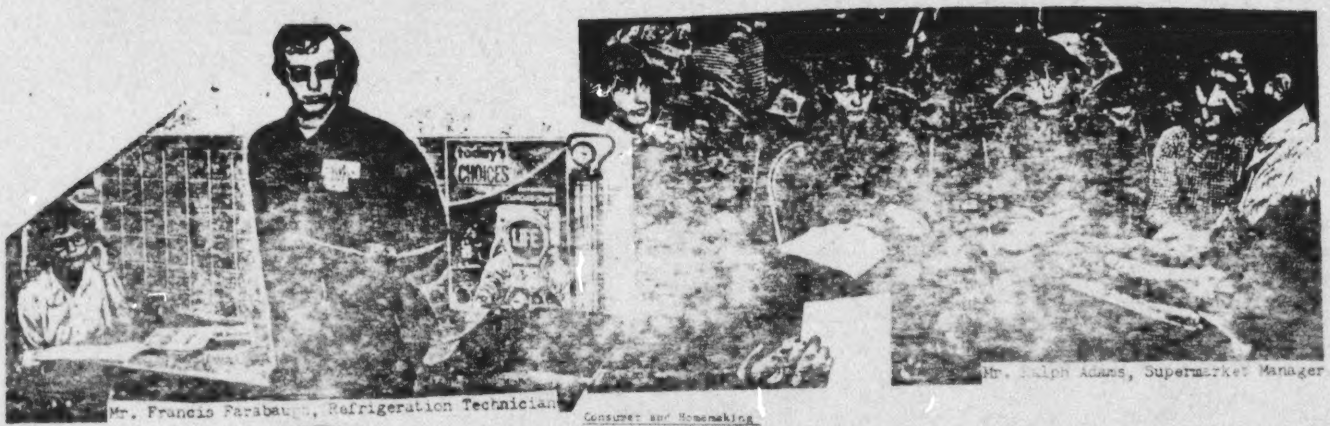


Mr. James Campbell, Marketing Representative



Mrs. June Griffith

12



Mr. Francis Farabaugh, Refrigeration Technician

Mr. Ralph Adams, Supermarket Manager

Consumer and Homemaking

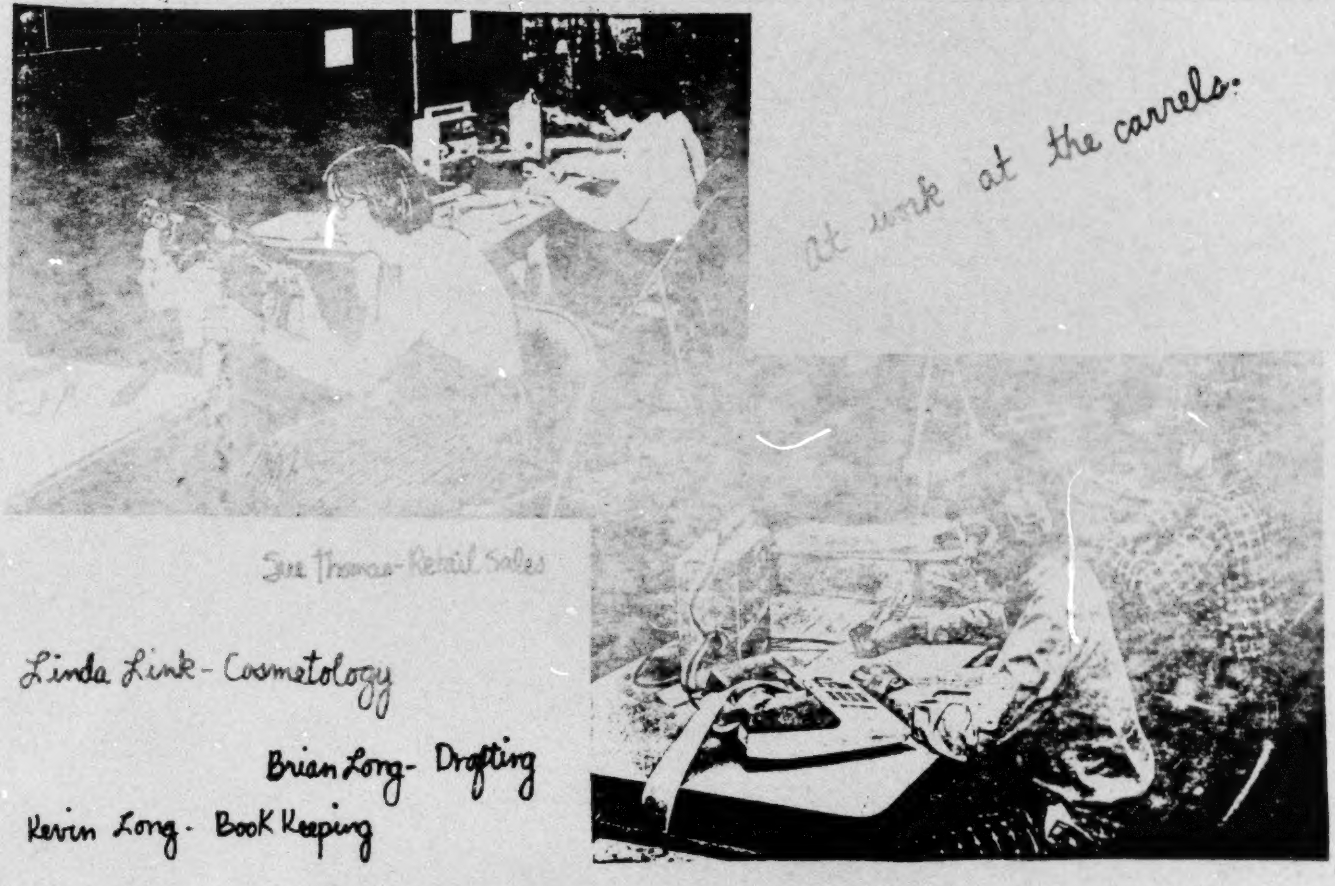
Jobs with food, clothing, and textiles, home furnishing, and families.

manufacturing

Mr. Michael Oyaski, Retail Merchant

Mrs. Pam Cotlar

Appliance Repairman Mr. Spero Tsikalas, Cook



At work at the carrels.

Sue Thomas- Retail Sales

Linda Link- Cosmetology

Brian Long- Drafting

Kevin Long- Book Keeping

14

WHAT WE LEARNED DURING CAREER EDUCATION WEEK....

A barber studies nerves, muscles, bones, and different types of hair.

A Physical Therapist works with people who have trouble functioning their muscles

Real estate salesman work on commission

Career Education week was a week for learning many different skills and careers from the nice people who took the time to come and teach us them. Some people learned how to weld, others learned how to become electricians, and others could have learned hundreds of other careers. We hope to have these educational and rewarding experiences in the future.

There is a good outlook for Librarians they must have a good personality and be willing to help people all the time.

The rewarding part of an Engineer's job is feeling of accomplishment as he sees his project being built.

90% of the time, the State Trooper is helping people. 10% of the time, he is arresting people

To solder and weld pipes together, you must use heat.

A Bank teller must be able to work quickly and accurately.

The key to research is to ask the right questions, talk to alot of people, and read alot of books and magazines.

Field Trips

Fire Chief
Chief Russell Scanlan informed the students about how many fire hydrants there are in Ebensburg, how the P.A. systems on the trucks operate, and how the sirens are operated. Students went out to the truck to try these out.

Water Treatment Plant
At the Water Treatment Plant, the children saw how water comes out of a fountain dirty, and then how it goes through a pipe and gets purified, fluoridated, and is treated with lime.

Mayor
Mayor Tsikalas of Ebensburg was interviewed at his office. He told us what his job involved, its importance, and how it related to other jobs in Borough government. Mr. Tsikalas enjoys his work and is good at it.

Police Chief
Police Chief Ross Dixon told students about his duties and the training necessary to be a policeman. They must always continue learning. He also showed them the weapons, radios, fingerprinting and other informational devices that are part of modern police work.

VO-TECH
Dave Davis showed four eighth graders the techniques of running the offset printing press. These students then printed the school paper on this press.

Chicken Farm
The people who went to the chicken farm saw over 72,000 chicks being fed and taken care of. Whoever wanted a chick received one.

Borough Manager
Mr. Bamford was interviewed in the Council Chambers. He talked about how roads, lakes, and lighting are improved in the borough.

ATTACHMENT #11

CAREER WORKSHOP DISCUSSION GUIDE

Name of Student ______________________ Date: Monday, April 12 ___

Job Title ______________________ Tuesday, April 13 ___

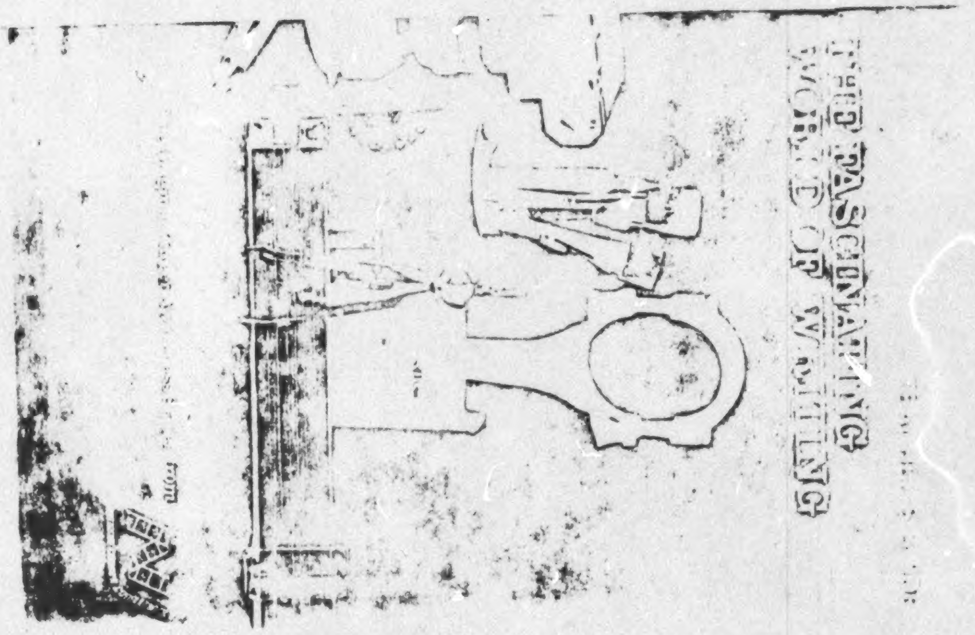
Name of Career Expert ______________________ Wednesday, April 14 ___

I. DISCUSSION GUIDE (write notes for yourself)

A. Sample questions you could ask the "Career Expert:"

1. What do you do? What tools do you use?
2. Do you work with people, data, or things, mostly? Do you work by yourself or with others? With whom?
3. How did you first get interested and/or started in this kind of work?
4. What are some related occupations?
5. What are the good (easy) and bad (hard) points of your job?
6. How long have you been at this job? Why do you feel this was a good job choice for you?
7. What are some of the rewards of this job? (personal, to society, financial)
8. What is the outlook of this job? (chances for advancement, need for more people, union membership, working hours, working conditions, environment)
9. What changes in equipment, automation, personnel, training requirements, have you experienced in the time you have been in this field?
10. What training or education is required for this job? (High School? Trade School? College? Apprenticeship? Graduate degrees?)
11. What school subjects help you the most? What else did you learn and do in school that has helped you?
12. How are you improving your job skills now? (school, books, on the job training)

ATTACHMENT # 12



INTRODUCTION

The combination of early college orientation in both primary and secondary schools... concerned parental fears of a youngster's lack of future goals...and the shortage of realistic career awareness materials, all add up to many people *falling into* careers for which they are totally unsuited. Surveys indicate most young people have little or no idea of what they want to do. Those who have focused their ambitions on a given career have often reached this momentous decision through information supplied by such "realistic" sources as Marcus Welby and Perry Mason. How do you give the student the necessary information to intelligently choose a life's work?

Solution:

A strong beginning is *The Fascinating World of Work Career Awareness Series.*

OBJECTIVES

The Fascinating World of Work has three objectives:

1. Self-awareness: To help the student understand his or her own lifestyle and project the individual lifestyle with which he feels he would be happiest. (No effort is made to sell a particular lifestyle.)
2. Self-awareness/Career-awareness: To explain to the student how each career relates to his or her projected lifestyle; and
3. Career-awareness: To explain the day-to-day duties of a person engaged in a specific career.

Way of Life Formula:

The *Way of Life Formula* is a thoroughly unique mathematical equation that gives the student the opportunity to compare what a career has to offer with what he most wants out of life. The Way of Life Formula is based on nine *Life Values:*

1. Security
2. Wages
3. Creativity
4. Status
5. Influence
6. Responsibility
7. Homelife
8. Variety
9. Advancement

Collectively these Life Values can represent happiness, or success within the job.

5

EVALUATION FORM

CAREER:

LIFE VALUE	CAREER POINTS	PERSONAL POINTS	TOTALS
HOMELIFE			
SECURITY			
WAGES			
VARIETY			
ADVANCEMENT			
CREATIVITY			
STATUS			
INFLUENCE			
RESPONSIBILITY			
		CAREER RATING NUMBER	

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Here's how the Formula works:
The student places a zero to ten rating on each of these Life Values, according to its importance to him. (More than one Life Value can receive the same number of points.) These numbers are called *Personal Points* and cumulatively become the student's *Personal Point Standard*.

Each film rates the career it's exploring according to each Life Value's presence in the career. These points are referred to as *career points*. Upon multiplying the student's Personal Points by the Career Points, and then adding the results, the student receives a *Career Rating Number*. The Career Rating Number will be unique to each student. The higher the number, the better his or her chance of being happy in that career. And of course, the happier he is in a career, the better his chances are for career success.

Things-Data-People

Government employment services classify all jobs according to "things-related jobs", "data-related jobs", and "people-related jobs". Studies indicate that most people are happiest working with any one of the three, rather than all of them. Therefore if a student, by viewing the films in this series, can determine which of the three attracts him most the task of a career selection can be greatly simplified. Each sound filmstrip in the Fascinating World of Work Career Awareness Series thoroughly explores the above relationship.

Advantages & Disadvantages

There are advantages and disadvantages in every line of work. In addition, what may be an advantage to one person can easily be a disadvantage to another (i.e. travel in a sales career). Each title in this series has been painstakingly researched through government services, experts and organizations within the career field, and through the educational community. Every effort has been expended to determine the realities of a career and present these in such a manner that the student can determine for himself whether these constitute advantages or disadvantages.

Suggested Uses:

There exist many opportunities to screen these career-awareness titles. The most obvious, of course, is on a one-to-one basis in the Guidance Counselor's office and in group situations on Career Day. In addition, homeroom period and study hours can be excellent times to present films. Civics class or social studies are ideal opportunities to present *The Fascinating World of Law* and *The Fascinating World of Law Enforcement*. *The Fascinating World of Accounting* should help students become more interested in math and algebra. *Careers in Sales* and *Writing* would certainly be interesting to English classes. When the student reads an article about a pay raise for the Teamsters Union, he can satisfy his curiosity about labor union careers by checking out *The Fascinating World of Truck Driving*. The possibilities are, indeed, limitless.

Mechanical Specifications:

Because of the diversity of filmstrip equipment currently available, each title contains two soundtracks. Side one has a pleasant audible tone to indicate when to change frames. When the equipment operator hears this tone, he simply advances the filmstrip to the next frame. Side two contains 50 Hz inaudible tones. Most manufacturers of automatic filmstrip projectors employ the 50 Hz method for automatic advance. If your projector is of this type, thread the film to the frame that reads "Start Cassette On This Frame". Place the cassette on the "Inaudible" side, turn it on and sit back and enjoy the show. The rest is automatic.

Available Titles:

1. How to Explore the Fascinating World of Work
2. The Fascinating World of Sales
3. The Fascinating World of Accounting
4. The Fascinating World of Mechanics
5. The Fascinating World of Truck Driving
6. The Fascinating World of Education
7. The Fascinating World of Law Enforcement
8. The Fascinating World of Secretaries

9. The Fascinating World of [illegible]
10. The Fascinating World of Civil Engineering
11. The Fascinating World of Computer Programmers
12. The Fascinating World of Retail Fashion Buying
13. The Fascinating World of Nursing
14. The Fascinating World of Law
15. The Fascinating World of Writers
16. The Fascinating World of Electricians

The Fascinating World of Work Career Awareness Series will never be completed. Additional titles will be released on a regular basis in order to help you economically build a large library of career awareness titles.

CONCLUSION

No other decision in a student's lifetime will affect his lifestyle, his productivity and his general happiness as much as his choice of a career. Information that will help him make this choice intelligently is possibly the most important educational benefit that he can receive at any level during his school years.

SUGGESTED DISCUSSION QUESTIONS

1. What does a Writer do in his day-to-day work?
2. What type of education does a Professional Writer need?
3. What are the advantages of a Writer's career to you? The disadvantages?
4. What are the Career Points assigned each Life Value in Writing?
(Answer: Security - 3 Wages - 7 Variety - 10 Advancement - 5
Creativity - 10 Homelife - 4 Status - 8 Independence - 9
Responsibility - 9.)
5. If you decide on a Writing career, how should you begin to prepare for it?

SUGGESTED FOLLOW-UP ACTIVITIES

1. Have each student complete a Way of Life Formula to see how the Life Values in a Writing career matches his or her own interests.

   [*NOTE: The student should compare the Career Rating Numbers only in those careers in which he is seriously interested.*]

2. Have those students who are seriously interested in a Writing career, begin activities such as writing The School of Journalism, University of Missouri, Columbia, Missouri 65201 for further information, and interviewing local writers.

ATTACHMENT #13

Date: April 8, 1976

Subject: Singer Exploration Program - Student Selection Form

The Singer Carrels and the Exploring Unit (E) are work-sample-stations containing all the tools and materials necessary to accomplish certain tasks which are related to a specific group of occupations. A short description of the seventeen carrels follows:

Please choose one of the following:

3. Drafting Station - the student will draw simple straight intersecting lines, concentric circles, angles and a three dimensional view of a grooved block using neatness and accuracy.

4. Electrical Wiring Station - the student measures insulated wire, cuts, strips and joins pieces together in a permanent splice using a soldering iron and gun.

7. Refrigeration, Heating and Air Conditioning - the student measures and cuts copper tubing and joins into a network utilizing flare fittings and compression ring couplings.

8. Soldering and Welding Station - the student measures, cuts, reams, and sands copper tubing, joins together using copper sleeves with heat supplied by a propane torch.

9. Office and Sales Clerk Station - the student alphabetically and numerically files a series of cards using a charge card a charge card imprinter and a number of charge card slips as though he were a sales clerk.

9a. Sales Processing - this job task includes filling our charge account sales tickets, recording information such as unit cost, tax, and total purchases for several customers and doing several tasks related to telephone catalog-type purchase orders.

10. Needle Trades Station - the student learns to operate a sewing machine, then measures and cuts a piece of cloth and sews the pieces into a small bag.

11. Masonry Station - the student mixes mortar and lays bricks using straight edges and squares.

13. Cooking and Baking Station - the student will measure and mix ingredients, knead and shape dough, and operate an oven making a biscuit type short cake.

15. Medical Service Station - the student applies an elastic bandage to an artificial arm; measures and records temperature, pulse rate and respiration rate exploring elements found in the medical-hospital environment.

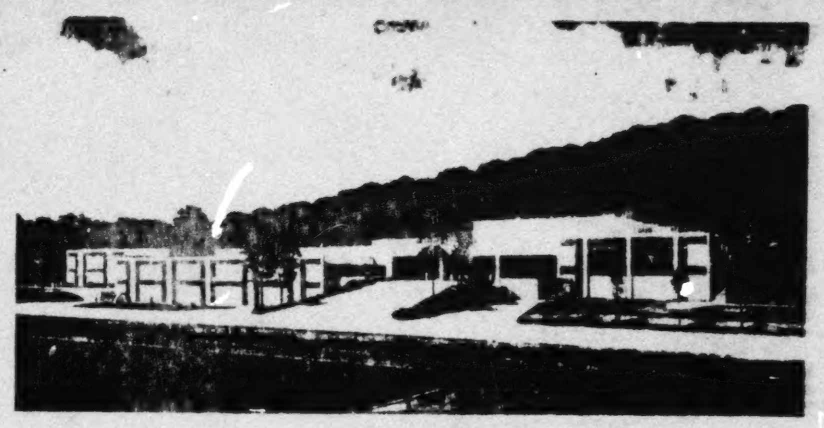
16. Cosmetology Station - the student will perform tasks related to the care and styling of hair and beauty treatments, using a mannequin with hair and the professional tools of the trade, including blow dryer, scissors, shampoo, and combs.

17. Data Calculation and Recording - the student will use an Electronic Calculator, and with the use of charts and other aids learn to'add, subtract, multiply, divide on the calculator.

E. Exploring- small engine repair and maintenance. The student will use some of the tools common to auto, truck, and small engine mechanics. Tasks such as adjusting spark plugs and ignition points, changing oil, and general maintenance operations will be performed by the student. Community related occupations and workers will also be studied.

APPENDIX IV-11

DEDICATION BOOKLET
PORTAGE AREA ELEMENTARY-MIDDLE SCHOOL



PORTAGE AREA SCHOOL DISTRICT

Dedication of Elementary-Middle School

A Bicentennial Event

April 25, 1976

PROGRAM OF DEDICATION

PORTAGE AREA ELEMENTARY-MIDDLE SCHOOL
PORTAGE, PENNSYLVANIA
Sunday, April 25, 1976
Auditorium 1:30 P.M.

PRESIDING
James A. Hepner, Superintendent

Bicentennial Music	**Fifes and Drums** *Edward J. Nemeski, Director*
Invocation	**Blair W. Ritchey** *Vice-President, Board of School Directors*
The National Anthem	**Audience** *Annette Tomaselli, Accompanist*
Flag Salute	**Audience**
Introduction of Platform Guests	**James A. Hepner**
Presentation of Building	**Wayne A. Franks** *Principal, Buchart Associates*
Acceptance of Building	
For the S.P.S.B.A.	**Howard W. Stahl** *Chief, Construction Bureau*
For the School District	**Michael W. Kearney** *President, Board of School Directors*
For the Staff	**Andrew J. Kittell, Jr.** *Elementary-Middle School Principal*
For the Student Body	**Melinda Sossong** **Kevin Chappell**
Bicentennial Music	**Fifes and Drums**

Fifes: Lisa Nemeski, Michelle [illegible], Connie Gates, Lee Ann Skitch, Sharon Bochowecky
Mary Kay Connolly, Shirley Haney, Beverlee Billow
Bells: Nadine Smith   Chimes: Marcia Hepner
Drums: Jeff Wells, Kevin McKenzie, Harold Wright, Brian Brosha

---

OPEN HOUSE

Architect

BUCHART ASSOCIATES	Pittsburgh, Johnstown, York

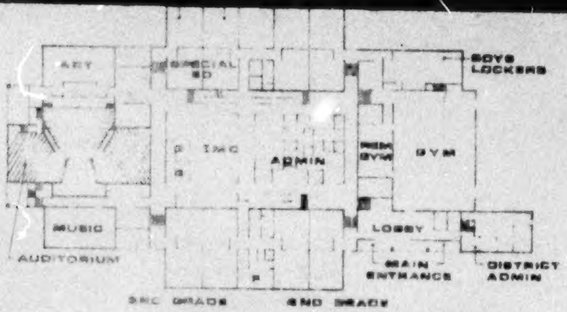
Contractors

General Construction	Jonel Construction Co., Johnstown
Heating and Ventilating	Mervac, Inc., Windber
Plumbing	Inland Corp., Johnstown
Electrical	Pat Madden Plumbing and Heating, Inc., Hollidaysburg
Food Service	Herre Bros., Inc., Harrisburg
Total Cost of Project	$4,211,000.48

Statistics

Total Amount Financed through S.P.S.B.A.	$4,199,115.46
Annual Rental	316,896.85
Construction cost per pupil	2,667.00
General Contractor	2,333,171.00
Heating and Ventilating Contractor	389,200.00
Plumbing Contractor	246,521.00
Electrical Contractor	301,759.00
Food Services Contractor	89,990.00
Architectural Services	203,401.59
Cost of Acquiring Site	69,603.64
Movable Fixtures and Equipment	261,936.26
Contingencies	91,982.43
Reimbursable Pupil Capacity	1427
Number of Square Feet	114,953
Size of Site	50 acres
Bid Opening	November 28, 1973
Groundbreaking	December 2, 1973
Occupancy	October 6, 1975
Dedication	April 25, 1976

Photographs by Cover Studio, Johnstown
Floor Plan Drawings by Buchart Associates
Beckley Printing, Portage



LEVELS III - IV - V

Third Level:

Second and third grade instructional pods are located on this level connected to the other levels by stairwells and ramps.

The main entrance lobby is designed not only to handle spectators for gymnasium events, but to serve as a dismissal time calling area for bus students during inclement weather.

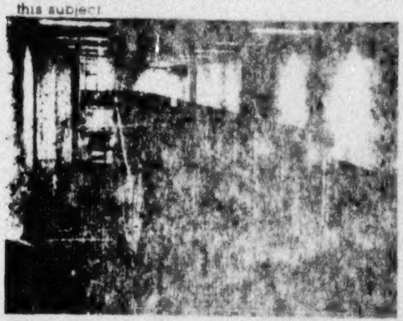
A completely equipped regulation size gymnasium and an adjacent remedial gymnasium with sport surface base provide ample physical education facilities.

A stairway to the girls' locker room separates the gymnasium and boy's locker room.

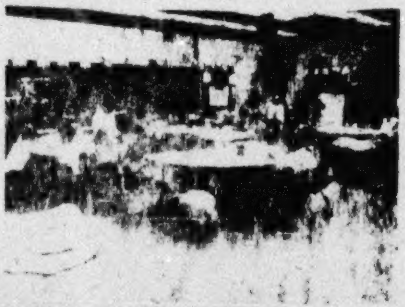
Fourth Level:

The administrative area directly off the main entrance houses the health suite, guidance suite, principal, administrative clerical area and a conference room. Adjacent the administrative area is a functional and well equipped Instructional Materials Center, better known as "the library".

A modern and fully furnished arts and crafts center with an outside patio area provides unlimited opportunities in this subject.



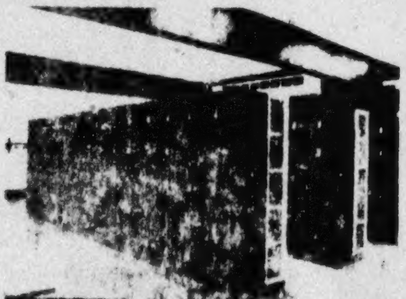
K - 3 RAMP

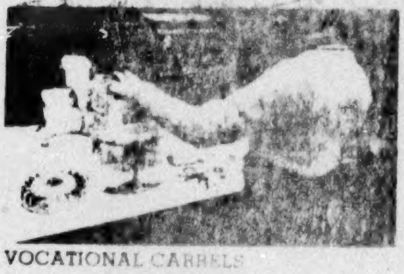


KINDERGARTEN

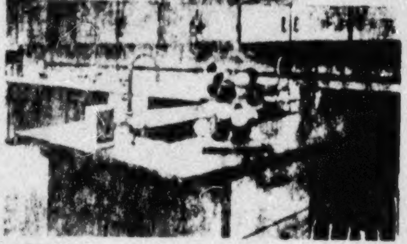
GYMNASIUM

LOCKER ROOM



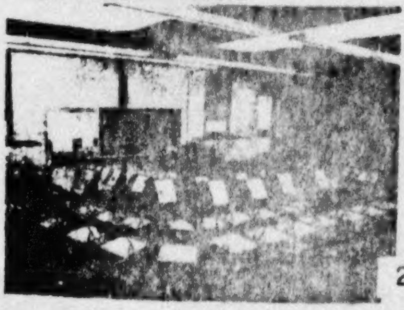


VOCATIONAL CARRELS

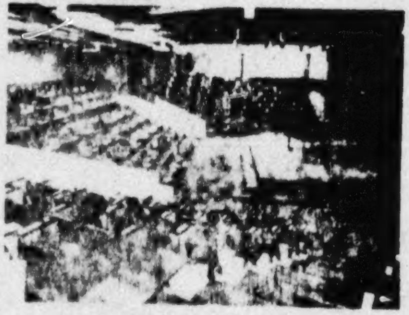


SCIENCE

INSTRUMENTAL MUSIC



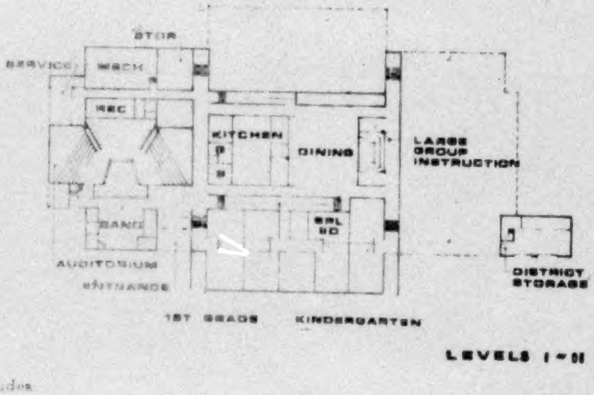
AUDITORIUM



PORTAGE AREA
ELEMENTARY-MIDDLE
SCHOOL
COMMONWEALTH OF PENNSYLVANIA
STATE PUBLIC SCHOOL BUILDING AUTHORITY
1974

ABOUT THE NEW SCHOOL

The Portage Area Elementary Middle School is the first Kindergarten through Seventh Grade organizational plan in Pennsylvania. In fact, one of the few in the United States! This was done for several reasons. Among them, it made educational sense and also to satisfy some of the provisions in the Long Range plan for this school district. We actually have two schools within a school in the new educational concept. Kindergarten through Grade [illegible] are located in the west section of the building in several pods on two levels. Grades [illegible] through 7 are located in the [illegible] section of the building [illegible] several [illegible]. [illegible] facilities [illegible] the building [illegible] include the Instructional Materials Center, the kitchen and cafeteria, the [illegible] music [illegible], the Art and Crafts Area, and the Administrative Suite. In addition to Kindergarten through 7th grade there are several [illegible] available through the [illegible] classes are offered [illegible] 5th, 6th and 7th grades, and [illegible] with the [illegible] gifted [illegible]. The new building [illegible] directly [illegible] the high school physical [illegible]. The first new building, the kindergarten [illegible] grade, provided. The school purchased all the land [illegible] beyond the [illegible] educational [illegible] plus the [illegible] acres previously owned now provides a campus of [illegible] acres. The school [illegible] by the architect by [illegible] staff for ideas in order to design an [illegible] functional building. This we feel [illegible] accomplished. The professional staff [illegible] new programs and new ideas in order to individualize instruction. Curriculum guides have been revised and updated and a Pennsylvania State University professional curriculum consulting team has worked with our staff during the past two years in order to have as complete an educational program as we can possibly construct. The Educational Service Center in the south wing of the new building is conveniently located to be approximately half way between the secondary school and the new elementary middle school. The second level of this wing houses the Central District Administrative Offices, and school board committee meeting area. The first level is district storage and [illegible] for [illegible] tractors and maintenance. Adjoining is a small parking lot to facilitate entrance to the district administrative area and be readily accessible to visitors. [illegible] walls throughout the new building are [illegible] which provide future flexibility in keeping with the needs of the ever changing educational programs. Excepting the lobby entrances and cafeteria which are [illegible] the classroom levels and the ramp and corridor areas are carpeted in keeping with the desire for sound control and ease in maintenance. The [illegible] has been designed for future population growth and also to accommodate three large groups comfortably at one time by closing the electrically operated partitions. The intercommunication system provides for instant communication with all areas of the building from the control system in the school office. The large group instruction room will seat 150 persons [illegible] of any particular grade or subject area. The boys' and girls' locker rooms as well as the two gymnasiums are conveniently accessible to one another. The career carrels located adjacent to the girls' locker room on the sixth level is a new and innovative program to help middle school students identify careers and is partially sponsored by the Admiral Peary Area Vocational Technical School.



LEVELS I – II

First Level Includes

Three oversized and completely equipped kindergarten areas. All kindergarten rooms on this level contain toilet facilities.

A large concrete and wood chip play area and grass play field are accessible from each room.

A special education [illegible] and an adjoining seminar room for individually [illegible] complete this pod.

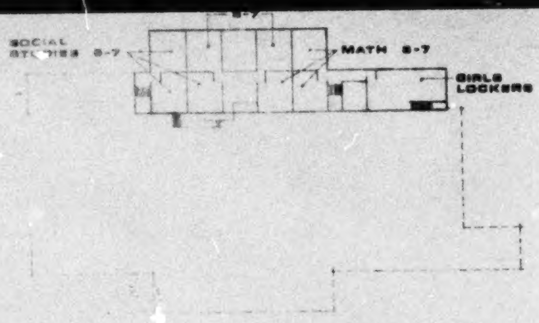
Five regular sized [illegible] sq. ft. classroom spaces and an [illegible] complete the first level.

Second Level

A large group instruction space of [illegible] sq. ft. [illegible] plan provides an excellent instructional and meeting place for groups of 150 persons. A modern kitchen with two serving lines enables over one thousand children to be served lunch in the cafeteria comfortably within ninety minutes.

The instrumental music area is well equipped with practice and storage rooms and includes a large tiered rehearsal area.

Adjacent the band room is a 527 seat auditorium with a large theater in the round stage and electrically operated folding doors to divide the room into three instructional or meeting spaces.



LEVEL VI

A tiered classroom music area with practice rooms, storage areas for school plays, and a fantastic view to the hills and valleys beyond completes this level.

Fifth Level:

The fourth grade plus middle school language arts and special education areas plus a locker area for grades four and five comprise this level. Classes can utilize the outside directly from their instructional areas on this level.

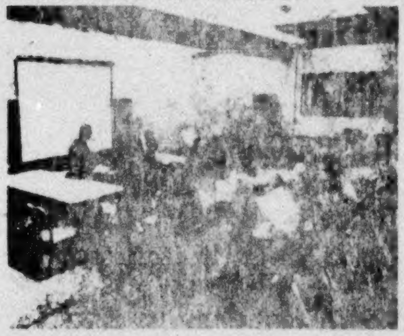
Sixth Level:

Grades six and seven are the primary occupants for classes and locker space. Social Studies, Mathematics, and a completely equipped science suite are found on this level. A career education wet carrel based program and the girls' locker room are located on the south east end.

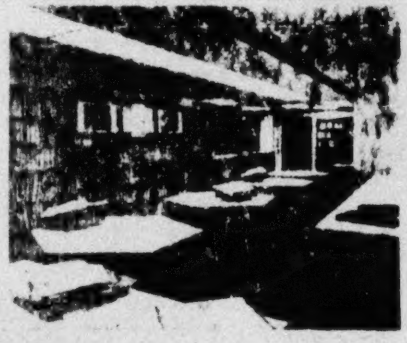
CAFETERIA SERVING

CAFETERIA DINING

LARGE GROUP INSTRUCTION



INSTRUCTIONAL MATERIALS CENTER



Board of School Directors
Michael [illegible]
President
Blair W. Bitchey
Vice President
J. Edgar Kiel
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Board Members Planning Period
James Cunningham
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Cafeteria Staff
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Lorraine Price
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Henry Ley
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Joanna S[illegible]y
Earl Sease
Neva Shaw
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Lucille Venter
Joyce Vickroy
June Voyzey
Doris Yaciain

APPENDIX VI-1

U.S.O.E THREE YEAR PROJECT
PROGRESS MONITORING TEAM REPORT

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGION III
3535 MARKET STREET
PHILADELPHIA, PENNSYLVANIA 19101

OFFICE OF EDUCATION

MAILING ADDRESS
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PENNSYLVANIA 19101

April 12, 1976

Mr. Mario J. Creany
Chief School Administrator
Admiral Peary Area Vocational
Technical School
Ebensburg, Pennsylvania 15931

Re: Performance Review Report - Part D Exemplary No. V361012
Grant No. OEG-0-73-5272, Admiral Peary Area Vocational-
Technical School, Ebensburg, Pennsylvania

Dear Mr. Creany:

A performance review was conducted April 6-8, 1976 on the above referenced exemplary project, funded under Part D, Section 142(c) of the Vocational Education Amendments of 1968. The review is required annually and the observations and recommendations have served as important criteria in the determination of funding consideration by the U.S. Office of Education in relationship to this project and also to funding future projects.

You will find attached the official report including recommendations. The report represents the consensus comments of the review team. Please use them to the best advantage in advancing career education in Pennsylvania.

On behalf of the evaluation team, I would like to thank you and your entire staff for the excellent cooperation and hospitality extended to the team throughout the review.

Best wishes for the successful operation of the project during the concluding year of the project and to your future endeavors in career education.

Sincerely yours,

Earl J. Dodrill

Earl J. Dodrill
Chairman, Performance Review Team
Senior Program Officer, VTE

cc:
✓Dr. Bryan V. Fluck
Dr. Edward Lareau
Dr. John Struck
Mr. Sewell Griffith
Mr. John Maire
Dr. Clarence Dittenhafer
Dr. Sheila Feichtner
Ms. Joyce Cook

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U.S.O.E. PERFORMANCE REVIEW REPORT

Admiral Peary Area Vocational-Technical School
Ebensburg, Pennsylvania

U.S.O.E. Grant No. OEG-0-73-5272
Project No. V361012

Title of Project: Language Experienced Based Awareness and Hands on Exploration and Competency Based Preparation - A Career Based Total Education Model

Dates of Performance Review: April 6, 7, 8, 1976

Review Period: July 1, 1973 - April 8, 1976

I. Introduction

The purposes of the performance review are to: (1) assess project administrative and management accomplishments, (2) ascertain extent of achievement of goals and objectives for review period, (3) identify project strengths and weaknesses and make recommendations for improvement.

II. Overall Observations

A. The project has progressed satisfactorily for the period reviewed. Several distinctive accomplishments, as listed below, serve to demonstrate the progress achieved with an emphasis on the extent and the degree to which the project has accomplished the objectives set forth in the original proposal.

1. Career education in-service workshops were established for the development of new curriculum concepts and procedures, and the orientation of teachers, counselors and certain administrators.

2. Project staff and teachers, utilizing the curriculum infusion process, developed "Learning Activities Packets" which were disseminated to the participating school districts and all schools in the Intermediate Unit, which includes 35 school districts.

3. The career education staff, in cooperation with Education Services, Inc., and ERANDA (third party evaluators), developed testing instruments, survey forms, questionnaires and evaluation sheets. They also administered a pre and post-testing program that included students at all levels (Grades 1-12).

4. Undergraduate and graduate students with education majors from local institutions of higher learning assisted the career education staff in curriculum revision and infusion and also career guidance activities in cooperation with local guidance personnel.

5. Approximately 840 students in grades 6-12 from three school districts participated in career exploratory activities using the Singer Vocational Evaluation System.

6. Approximately 487 ninth grade students participated in the "Career Experience Apprenticeship Program." The students came from all five participating school districts including the parochial high school. They attended the Area Vocational Technical School and were exposed to 17 career areas.

7. The career education director and staff have had to work under the constraint of a two-thirds progressive reduction of staff over the last two years of the project. This has contributed to the low morale of staff with accompanying loss of staff efficiency during this time frame. The staff is to be commended for their efforts in carrying out the project objectives in view of the above delineated constraints.

III. Overall Recommendations

A. Most of the recommendations made by the previous performance review team have been implemented. However, due to various extenuating circumstances some recommendations have not been acted upon.

Recommendation

That the project director and staff, in close cooperation with the administration, make increased efforts to implement the recommendations of the previous review team and the new recommendations that were an outgrowth of this years review.

B. Due to attrition, only two school superintendents of the initial five that originally agreed to implement the project are currently occupying these positions. This has created the need for additional formalized in-service workshops for the administrators of the project.

Recommendation

Realizing the necessity and importance of having the commitment and cooperation of all administrators, it is recommended that a workshop for administrators be established before the close of the project - June 30, 1976.

C. In a meeting with the administrators of the project it was observed that many of the publications relating to the AVTS contain the word careers on the publication covers. This has caused academic teachers to view career education as synonymous with vocational education, thus creating a problem of obtaining their cooperation with infusing career education concepts into their curriculum.

Recommendation

Delete and/or redesign the career terminology on the covers of AVTS promotional material.

D. Establish a workshop for secondary education academic teachers to give them orientation to career education and show them how their curriculum could be revised to infuse career education concepts.

Recommendation

The project staff and all administrators should make additional concentrated attempts to remove the widely held assumption that career education is vocational education. The area vocational technical school acting in the capacity as the project's local educational agency has inadvertently fortified this false assumption.

E. Four schools currently have a career education contact person/team leader. This only partially fulfills the previous recommendation to designate a contact person at all participating schools.

Recommendation

That a contact person be designated in all participating schools to: (1) provide or obtain resources, (2) provide leadership in staff development, (3) act as a liaison between the school, community, resource staff and administration.

IV. Administration

A. Inherent in the organization structure of an Area Vocational Technical School (AVTS) and its supporting school districts, all with independent local authority, exists the possibility of a breakdown in communications. The problem is further compounded when the AVTS acts as the local education agency (LEA) to implement a separately funded career education project that must operate in all supporting districts of the AVTS. The various levels of administration within the district and the schools require clear cut lines of communication and coordination. It appears that after the first year of the project this line of communication became less effective in achieving the project objectives.

Recommendation

It is essential that additional efforts be made to increase coordination and cooperation between the AVTS, joint operating committee, and the administrators of the project, participating school districts, and the Area Vocational Technical School.

B. Since the project ends June 30, 1976, it is necessary that a comprehensive plan be developed for continuing the career education effort within the five participating school districts including the AVTS.

Recommendation

That the various administrators of the project meet to discuss plans for the future implementation of career education within the five school districts. A comprehensive plan should be developed listing need, staffing, funding which would illustrate a definite commitment by all to continue to carry out the project's objectives.

V. Elementary and Middle School Activities

A. The review team visited the following schools: Holy Name Elementary School 1-8 and the new Portage Area Elementary Middle School K-7. These schools are involved with providing career awareness, self awareness and career exploration. The administrators of the above schools demonstrated a strong commitment and a desire to continue all aspects of career education in their schools. In our discussions with teachers it was evident that students are exposed to career education concepts through in-class activities, group discussions, counseling, role models, "hands-on" activities and integrating career education concepts into their regular instructional programs. The Singer Evaluation Systems are in use, at the above schools, to provide increased exploratory activities for students. It should be noted that the project staff has done a good job of developing and introducing local versions of their own making to supplement the Singer Evaluation System at the Holy Name Elementary School. Teachers were moving towards increased utilization of parents and community resources, such as a "Career Week" planned at Holy Name during May of this year. Fifty parents and local people will visit the school and participate in informational sessions with students. This project has provided teachers with curriculum infusion units and the necessary training for their use.

Recommendation

The participating school districts should expand their efforts to disseminate information about the advantages of career education to parents and teachers.

Efforts should be made to increase the number of schools, teachers and students in career education and demonstrate how this concept will help their students in all future career choices.

Career Resource Centers should be established at each elementary and middle school. These centers will facilitate the classroom efforts and serve as an informational base for students.

VI. High School Activities

A. The performance review team visited the Portage Area High School. One major thrust at the Portage Area High School, during the third year, has been the provision for exploratory "hands on" experiences for 9th grade students. The experiences were provided through the use of the Singer Evaluation System Carrels. The carrels provided experiential opportunities in 16 occupational areas.

B. A second thrust during the third year involved the establishment of a career resource center in conjunction with the guidance program at the school. The center provided informational resources to students and teachers involved with career education.

C. In retrospect over the three years several secondary accomplishments need to be cited as successful components of the career education project:

1. The Admiral Peary Area Vocational-Technical School continues as a very viable preparatory institution for students pursuing occupational careers. It is difficult to assess the overall impact of the present project on the ultimate character of the offerings at the above school.

2. The ninth grade apprenticeship program proved to be a very successful secondary component of the project at the area vocational-technical school. Ninth grade students from sending schools were brought to the vocational school for experential exploration in several occupational offerings. The program was never expanded beyond the offerings at the area vocational-

technical school. Unfortunately increased full-time enrollments at the school caused the temporary suspension of the apprenticeship program during the third year of the project. Current plans call for reinstating this component in the FY 77 school year. The project's staff attempted to involve business teachers in the preparation of tasks analysis sheets for their programs. The activity was successful in that the teachers prepared and/or received task title glossaries to the extent that participating teachers identified student rosters and student completion printouts. Little project staff follow up was available to the business teachers after the initial in-servicing due to staffing cuts and lack of the necessary time. The project has initiated efforts in the various schools and were in evidence through discussions with project staff, school administrators, observations of activities that incorporated curriculum infusion, establishment of career resource centers, and general awareness of the project's goals.

Recommendation

Every attempt should be made to strengthen the secondary component, especially through the integration of career education concepts into the ongoing curriculum. The above integration can be enhanced by the administrative support that currently is in evidence at some elementary and middle schools.

Every effort should be made to reinstate the successful ninth grade exploratory apprentice program at the Admiral Peary Vocational Technical School. Further, similar experiences should be made available in career areas not offered at the vocational school.

Discussions should be held with local administrators relative to the expansion of the career resource centers in the various sending schools. Research has proven the value of these centers as viable vehicles for the infusion of career education into local educational programs.

VII. Advisory Council

A. The purpose of an advisory council is to solicit input regarding program direction and to secure community support in implementing the program. The success or failure of any program aimed at change depends on the internalization of the change by the target population. No program can be successfully imposed upon a school or community by external agencies. It was the recommendation of the second year performance review team and the third party evaluator that "a Career Education Advisory Committee be established to assist the project director and staff in the implementation of career education concept." No advisory committee was established during year three.

Recommendations

A Career Education Advisory Committee should be established. The structure of this committee can be vertical within a particular school district or horizontal across districts. The Committee should include the following representatives; business, parent, school, administration, teacher, teacher education, and student.

The initial meeting of the committee should include an orientation to the concept of career education and an overview of a total career education model.

The advisory committee should be used to identify obstruction to change and to facilitate the work of the personnel involved in implementing a total career education program.

VIII. Post Secondary Activities

Post-Secondary activities in a total career education model involve the following goals: (1) a placement program for those seeking employment at the end of 12 years of education, (2) a placement program for those students who wish to continue on to college and (3) articulation of secondary and post-secondary programs for those desiring employment in occupations requiring more than 12 years but less than 16 years of education or training. This project originally addressed itself to goal (1) as one of its process objectives. (listed below)

"To implement a placement procedure program whereby placement and cooperative education personnel of the AVTS will cooperate with the Bureau of Employment Security, other governmental agencies, business and industrial leaders, and educational leaders in the community to attack the long and short range problems of employment for those seeking it. Work experiences and cooperative work study programs will be integral part of the program and will include use of computerized student records. Placement in post secondary programs will also be included in the placement program."

No activity was reported by the director of the project toward accomplishing this objective during year III, other than those placement efforts traditional to the vocational school.

During year I of the project, the following post-secondary activities were reported by the USOE performance review team as being conducted by the project staff:

1. Placement of exiting students from grades 10, 11 or 12 into the labor market, instiutitions of higher learning, or technical institutes,

2. Operation of an adult eveing school offering courses from fire fighting to cake decorating to meet the needs of adults in the local labor market. Many graduates of the AVTS and local high schools attend this program. During the period October-December 1973, 551 adults were enrolled in 28 different course offerings.

3. Occupational upgrading during regular business hours with local industries. Approximately 250 miners in the soft coal industry were upgraded [illegible] of Mines requirements in a two-week program built on the career education concept and offered in the AVTS facilities. Another 200 miners are scheduled for [illegible] in the next few months in a similar program to be offered at the AVTS.

4. Approximately 60 people have been trained in the facilities of four local sewing factories under the supervision of the AVTS personnel. This program is activated as needed.

5. An Emergency Medical Technician program is being conducted in conjunction with Educational Projects, Inc., of Pittsburgh, Pennsylvania, AVTS facilities are being used for this program. The first class of 20 students has completed the 80 hour course in cooperation with a local hospital. A second class is scheduled to begin in February 1974.

Although only items one and five above can be technically classified as post-secondary activities, all are included to indicate an effort on the part of the project staff to develop and implement a total career education program.

During year II the following post-secondary activities were reported by the USOE performance review team as being conducted by the project staff:

1. Preparation of a proposal for certificate and associate degree programs for first line supervisory personnel.

2. Development of post-secondary spinoffs in (a) emergency medical training, (b) mine electrical maintenance upgrading, and (c) nutrition program.

3. Establishment of a cooperative program with Indiana University of Pennsylvania by providing a field experience for graduate students in counselor education.

4. Development of a cooperative program with St. Francis College involving curriculum construction of career education modules by undergraduate elementary education majors.

Much of the post-secondary effort during year II was directed toward people outside the target population; however, the products of these efforts were incorporated into the project.

Because post-secondary activities should focus primarily on serving the needs of those students who need more than a secondary level education but less than a college education to become employable, the following recommendations are made.

Recommendations

Employment opportunities should be identified in the target area available to those with more than 12 years but less than 16 years of education and training.

Students should be made knowledgable about employment opportunities and the job requirements.

If no training/education programs are available to prepare students for occupations designated as career objectives, they should be developed. If such training/education programs are available they should be analyzed to determine if they articulate with secondary programs.

IX. In-Service Training

A major ingredient for success of any Career Education program is staff and administration training sessions or workshops. During the first two years of this project 62 teachers and 5 counselors were involved in staff development to assist in developing curriculum units, to inform teachers about resource materials, and to provide an understanding of the educational concepts to be utilized. This third and final year, staff development has not been as extensive. Only 24 teachers were involved due to changes of project staff, funding levels and the establishment of new priorities by the participating school districts. Follow-up must be a continuing process to assist all teachers and administrators in filling their respective role in this on-going process.

Recommendation

All participating districts that accept Career Education as a priority should look for resources to continue and expand

the opportunities for teachers and administrators to participate in staff development programs.
(Note recommendation for Administrators Workshop in Overall Recommendations.)

X. Guidance and Counseling

The functions of counseling and guidance personnel in a total career education program are as follow:

1. Serve as resource consultant to teachers, students, administrators, parents and others seeking information.
2. Invite technical and vocational school representatives to college night or career day programs, along with other representative and employers.
3. Provide information related to a wide variety of career options.
4. Serve with other education personnel as liaison between the school and the business-industry-labor-professional community.
5. Assist in placement of graduating students with employers in addition to providing guidance to others going on to technical schools or colleges. (Career Education, Chamber of Commerce of the United States, p. 13)

At the end of year III, the guidance and counseling component of the project is functioning in one school district (Portage Area). Their middle school activities include; group exploration of decision making and self-awareness. They are used in conjunction with career exploration with the Singer Carrells and information available in the Career Resource Center.

The concentrated effort at this one school is a result of the second year recommendations of the third party evaluator to concentrate limited project resources at a grade level which would offer the highest probability of success.

Other guidance and counseling activities associated with or resulting from obstruction with the project include the addition of an elementary counselor to the staff of the Central Cambria and Blacklick Valley School Districts. The Holy Name elementary school is utilizing an itinerant public school counselor as an adjunct to their career awareness program which focuses on self-awareness.

In addition, a member of the project staff worked with the 8th grade at Holy Name in a group counseling program that was geared toward decision-making and value clarification.

Recommendations

The programs currently operating successfully at the middle school in the Portage Area Elementary-Middle School and Blacklich Valley Central Cambridge and the Holy Name elementary school should be further developed to provide replicable counseling and guidance models as the need becomes apparent to other schools in the target area. Such development should include personalized counseling relative to occupations utilizing skills measured in the Singer Carrells.

In-service training programs should be made available, career education and methods of implementing career education into the total school program to all counseling and guidance personnel.

XI. Evaluation

The evaluation team met with Dr. Martin Higgins and Dr. Ernest Peters (Associate Directors) of ERANDA, the third party evaluator during year II and Year III of the project. The evaluators presented their subjective and objective perceptions of the project's outcomes to date. The objective comments were supported by statistical data from the second year's evaluation.

They also presented their evaluation design for the current year. The plan calls for assessing product (student outcomes) objectives through pre and post-test data. Since the post-testing was just completed prior to the performance review teams visitation, no current year results were available.

Assessment of the project's process objectives was primarily through the annual performance review team's observations. the preceding pages contain the current and overall assessments of process objectives.

Recommendations

The project staff and the third party evaluator should meet with all school administrators and review the evaluative reports. The review should provide direction for the development of strategies implementing successful elements after the present project terminates.

Any subsequent program implementations should include an evaluation component.

It is the unanimous consensus of the team that satisfactory progress has been made toward the achievement of the project objectives as evidenced by the findings that are delineated above.

ATTACHMENT A

PERFORMANCE REVIEW PARTICIPANTS

I. Performance Review Team

Mr. Earl J. Dodrill, Chairman, Performance Review Team,
Senior Program Officer, OAE, USOE,
Region III, Philadelphia, Pa.

Dr. Clarence Dittenhafer, Research Associate, Pennsylvania
Department of Education, Harrisburg, Pa.

Dr. Sheila Feichtner, Assistant Professor of Vocational Education
University of Pittsburgh, Pittsburgh, Pa.

Mr. John Maier, Project Director, Exemplary-Part D, Philadelphia, Pa.

II. Administration Staff of Admiral Peary Area Vocational Technical School

Mr. Mario Creany, Chief School Administrator
Dr. Bryan Fluck, Executive Director of Vocational Education
Mr. John Buriak, Director of Vocational Education

III. Career Education Staff

Dr. Edward H. Lareau, Associate Director for Research
Dr. Clifford A. Baylis, Research Associate
Mrs. Leona Sowers, Research Associate

IV. Third Party Evaluators

Dr. Martin Higgins, Associate Director, ERANDA
Dr. Ernest Peters, Associate Director, ERANDA

V. Administrators and Staffs of Schools Visited

A. Holy Name Elementary School

Sister Norma, Principal
Sister Paula, Counselor
Mrs. Shirley LaVanche - 7th and 8th grade teacher
Sister Brenda - 7th and 8th grade teacher
Sister Mary Louise, 1st grade teacher
Mr. Ellen Baylis, Teacher Aide
Ms. Virginia Tancrede, Teacher Aide

B. Portage Area Elementary-Middle School

Mr. James Hepner, Superintendent
Mr. Andrew Kittel, Principal
Ms. Ethel Girard, Teacher Aide
Mr. John Buchovecky, Guidance Counselor

C. Portage Area Junior Senior-High School

Mr. Steven Ngeste, Principal

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